



The Aging Population of Romania: A Long-Term Process with Hard-to-Predict Effects

Șelaru Ilie-Cristian¹
Pintilia Liliana²
Roxana-Violeta Partas-Ciolan³

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Abstract: *In Romania, as in most European countries, one of the major issues is the continuous population decline driven by aging, decreasing birth rates, and increasing life expectancy. These are just a few of the significant aspects that characterize the demography in Romania, 35 years after the Revolution of 1989. In demographic terms, some of the consequences are reflected in a drastic reduction in the resident population of areas that are currently economically unattractive, as well as major imbalances in the population across the three key age groups, among others. The economic and social consequences are highly diverse, affecting both the labor market and the demand for healthcare and social services tailored to the specific age structure of the population or the distribution of residents across different environments.*

1. INTRODUCTION

The population decline over the past thirty-five years is a phenomenon present in most countries worldwide, but it has been significantly more pronounced in former socialist bloc countries. The demographic decline in Western European countries is counterbalanced by international migration, whereas the natural population growth component has an insignificant impact. As of 2023, only six countries in the European Union (Cyprus, France, Ireland, Luxembourg, Malta, and Sweden) recorded a positive natural increase (Eurostat, 2025). Moreover, in France, a country where population growth was largely driven by positive natural increase for an extended period, the year 2024 saw a low positive natural increase (INSEE, 2025). This phenomenon manifests not only through a continuous reduction of the resident population but also through dramatic changes in the population structure by age groups.

Romania's population dynamics over the last three decades follow this trend, and a turning point in the evolution of the resident population is far from being identified (Ghețău, 2025). While international migration was the dominant factor in reducing the resident population during the first two decades, today, the natural component holds the greatest weight (Andrei & Ghețău, 2023).

2. DEMOGRAPHIC EVOLUTION IN ROMANIA – GENERAL CHARACTERISTICS

The size and structure of a country's resident population are directly determined by a combination of economic and political factors. In Romania, political factors have played a crucial role in the evolution of the resident population. Political decisions or changes have had a profound impact

¹ The Bucharest University of Economic Studies, Faculty of Economic Cybernetics, Statistics and Informatics, 15-17 Dorobanti Avenue, District 1, 010552, Bucharest, Romania

² The Bucharest University of Economic Studies, Faculty of Economic Cybernetics, Statistics and Informatics, 15-17 Dorobanti Avenue, District 1, 010552, Bucharest, Romania

³ The Bucharest University of Economic Studies, Faculty of Economic Cybernetics, Statistics and Informatics, 15-17 Dorobanti Avenue, District 1, 010552, Bucharest, Romania

on population size, leading to significant modifications in population structure over time. These can be assessed through the two age pyramids presented in Figure 1. The following section will address the most critical sudden changes in Romania's resident population dynamics based on the age pyramid of the resident population as of January 1, 2013:

- In 1957, a political decision liberalized abortion, leading to a slow but continuous decline in the number of live births until 1966. During this period, the average annual decrease in the number of live births was 3.2%. This trend is reflected in the decline in the number of people aged 56 to 45.
- The most severe political intervention in family planning occurred in 1966 when the Communist Party banned abortions. The impact was immediate, with the number of births increasing by nearly 93% in 1967 compared to the previous year. This phenomenon is visible in the 2013 pyramid through the significantly higher number of individuals aged 45.
- During the Communist period after 1966, additional political measures were taken to forcefully stimulate the birth rate, though their effects were considerably smaller.
- The political changes of 1989 marked the beginning of a new demographic transition in Romania. Over the past three decades, there has been a continuous decline in the number of live births and a significant decrease in the resident population due to international migration, as individuals gained the right to free movement.

We can assert that Romania's current demographic situation is, to a greater extent than in other regional countries, a direct result of political interventions and changes over the last 60 years. The characteristics of the age pyramid based on recent resident populations provide the best evidence of this. Major shifts in the contour of the pyramids from 2013 to 2023 correspond to generations born in the years preceding key political decisions regarding abortion regulation (1957 and 1966) or the political transition of 1989.

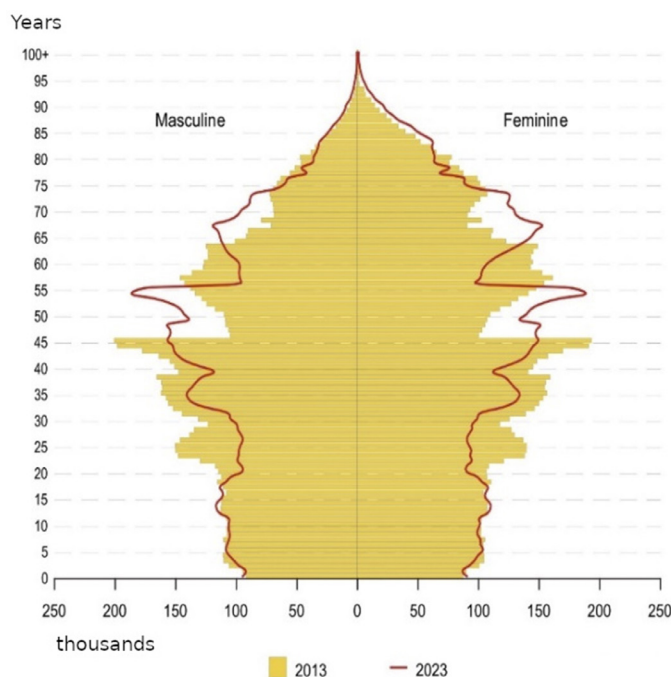


Figure 1. Age pyramid, years 2013 and 2023

Source: NIS (n.d.)

The brutal interventions of state institutions between 1966 and 1989 in regulating abortion, aimed at increasing Romania's population, as well as the restriction of free movement at the international level, created the conditions for a negative demographic trend following the political changes at the end of

1989. Once the factors that had driven population growth (birth control at the family level through the banning of abortion and at the macro level through restrictions on emigration) were eliminated, the country's population has been continuously declining over the past three decades (Figure 2).

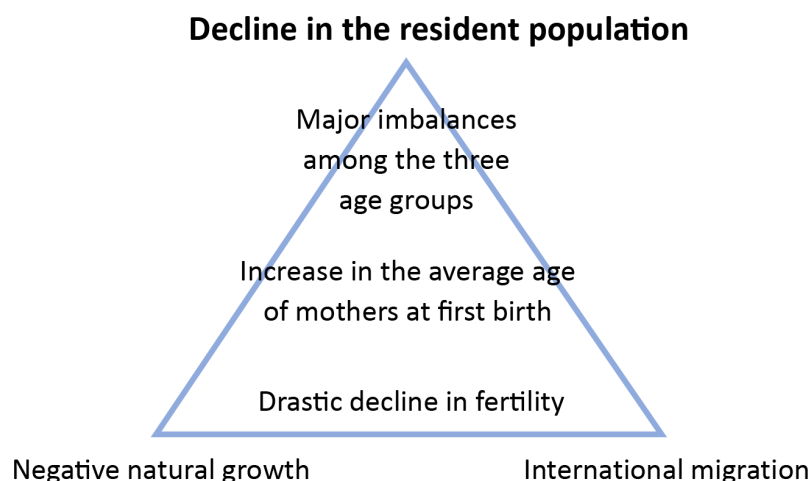


Figure 2. Demographic Decline – A phenomenon across former socialist bloc countries

Source: Author's illustration

In the period immediately following 1989, the number of births continuously declined due to:

- The legalization of abortion, which allowed families to regain control over family planning.
- Cultural changes in society, which led to a new approach among young people regarding the timing of their first child and the number of children they had.
- Freedom of movement and economic difficulties, especially in the early stages of Romania's transition to the EU, which encouraged large-scale international migration, primarily among young people. This significantly reduced the population's fertility potential.

As a result of these three factors, the fertility rate has dramatically declined over the past three decades. Several key birth rate values (live births per 1,000 inhabitants) recorded over the last 60 years illustrate how political interventions and societal changes have influenced Romania's population trends:

- 19.1 live births per 1,000 inhabitants in 1960, three years after the legalization of abortion.
- 21.1 in 1970, four years after abortion was banned.
- 18.0 in 1980.
- 13.6 in 1990, immediately after the political changes of December 1989, highlighting the strong influence of state intervention in family planning.
- 9.6 in 1990, before the COVID-19 pandemic, as a result of societal transformations and international migration.

These significant fluctuations in fertility rates have had—and will continue to have—a major impact on the size of Romania's resident population and its distribution across the three age groups.

3. THE EFFECTS OF MIGRATION

International migration is a demographic phenomenon that has affected and will continue to affect the size and age structure of the resident population. Today, over 4.1 million Romanians live abroad for more than a year. While international migration was the primary factor reducing the resident population in the first two decades after 1989, natural decline has become the predominant factor in

recent years. Since 1992, the annual number of deaths has exceeded births, but in the past decade, this imbalance has significantly widened. Between 1990 and 2011, international migration accounted for nearly 80% of Romania's population decline, while from 2011 to 2023, its contribution fell to less than 60%. In recent years, most of the population decline has occurred through natural decrease.

An essential aspect of significant migration, beyond the annual flow and stock over a given period, is the average age of those involved. In 2007, the number of Romanian emigrants was 544,000 (51.2% men and 48.8% women), with an average age of 29.7 years. The large flow of female emigrants in high-fertility age groups reduced the fertility of the resident population and increased the number of children born abroad to at least one Romanian parent. Consequently, after several years, Romanian emigrants have children born abroad, some of whom are also registered in Romania at birth or in subsequent years.

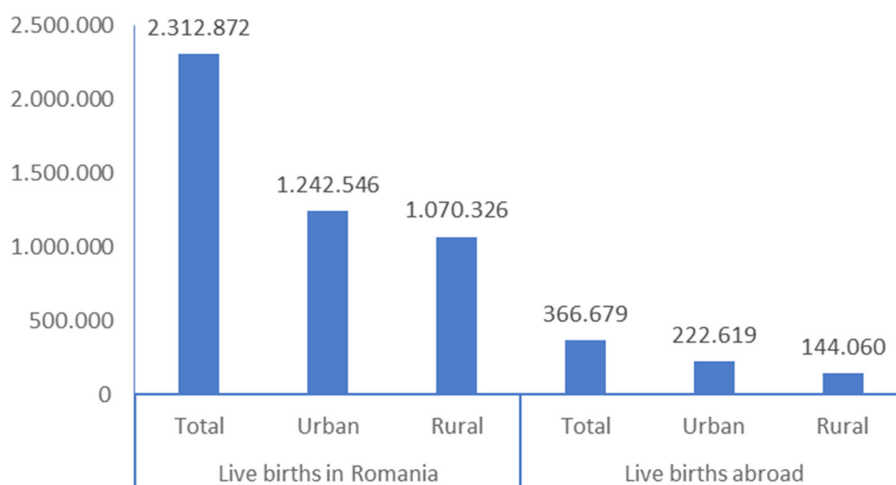


Figure 3. Total live births in Romania and abroad, 2009 – 2021

Source: Own calculations

Thus, one visible effect of the large stock of Romanian emigrants is the high number of children born abroad who have at least one parent with Romanian citizenship and are also registered in Romania (UNPD, 2024). Figure 3 presents the number of children born in Romania and those born abroad but registered in the country between 2009 and 2021.

What do these data highlight? First, they emphasize the significant number of children born outside the country who are still officially recorded in Romania. For every 63 children born in Romania, an additional 10 children born abroad were later registered in the country. This result underscores both the large scale of Romanian emigration and the strong cultural and economic ties that emigrants maintain with Romania over long periods.

The development of the economic environment in Romania could be a key factor in attracting a significant portion of this population back to the country. It is possible that some members of the first generation of Romanians born abroad to emigrant parents—particularly those whose families left during the transition period—might choose to return. Given that economic factors were a primary driver of Romanian migration, they could also serve as a motivating factor for return migration.

From a strictly demographic perspective, immigration from this population group could help mitigate age group imbalances within Romania's resident population.

4. POPULATION AGING IN ROMANIA

Between 1990 and 2023, Romania's population decreased by over 4.2 million people, affecting demographic structure, the labor market, demand for social and healthcare services, and the pension system. The primary issue concerning the resident population is not only its significant reduction over a short period but also the aging phenomenon and the deterioration of the age-group distribution. After 35 years of this demographic transition, severe consequences are emerging: declining fertility leading to a long-term population decrease, labor shortages in various sectors, increasing demand for social and healthcare services for the elderly, and ensuring the sustainability of the pension system.

Due to societal and economic changes, Romania's average age has continuously increased since 1989. In 1990, the median age was 34.5 years, rising to 42.2 years in 2020—an aging process of 7.7 years over 30 years, representing a 22.3% increase. On average, Romania's resident population ages by 0.7% annually. If this trend continues, the median age will reach 46.8 years by 2035 and around 50 years by 2045. These trends could lead to severe imbalances in the labor market, healthcare, social services, and the pension system.

Aging is more pronounced among women. In 1990, the average age for women was 35.6 years, while for men, it was 33.4 years. By 2020, these figures had increased by 8.3 years for women (an annual aging rate of 0.73%) and by 7.2 years for men. As a result, by 2020, the median age for women was 43.9 years and 42.2 years for men. If these aging rates persist, the median age for women will be 48.9 years and for men, 44.9 years by 2035. By 2045, these figures could reach 52.6 years for women and 48.0 years for men. Increased international immigration, typically composed of young individuals, could help mitigate Romania's median age and reduce imbalances among the three major age groups, significantly increased in the last three decades.

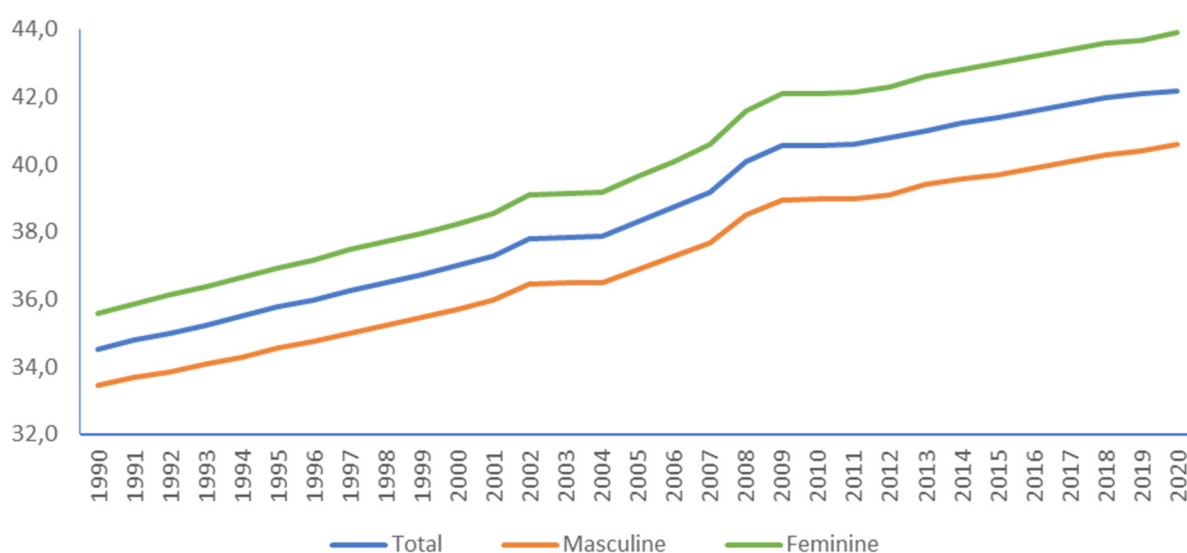


Figure 4. Evolution of the median age in Romania

Source: Own calculations

The age group distribution highlights an inverted demographic pyramid. Two key statistical indicators best illustrate the aging effect of Romania's population, which is currently unfolding and will continue for a long time: the Demographic Aging Index (DAI) and the Demographic Dependency Ratio (DDR).

Both indicators have shown negative trends over the past decade. In 2012, the DAI was 101.8 elderly persons per 100 young people, but by 2023, it had increased to 122.0. Moreover, as illustrated in Figure 5, the growth of this indicator has been constant throughout the mentioned period.

Similarly, the DDR has risen from 47.0 dependent persons per 100 working-age adults in 2013 to 56.0 in 2023. The evolution of this indicator further demonstrates the imbalances in the distribution of the population across the three main age groups.

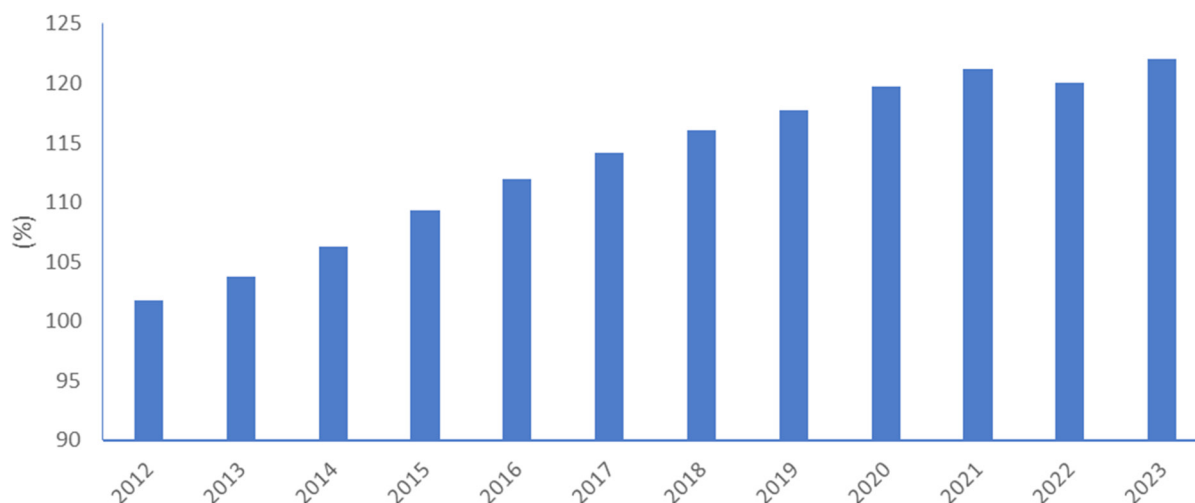


Figure 5. DAI in Romania, 2013 - 2023

Source: NIS (n.d.)

5. CONCLUSION

Over the past three decades, Romania has experienced a decline in its resident population of more than 4.2 million people. The major issues concerning Romania's resident population are not only related to this significant decrease but also to the severe imbalances in its distribution across the three main age groups: young people (aged up to 14 years), adults (aged 15 to 64 years), and elderly individuals (aged 65 and over).

The evolution of the population distribution across these three age groups over the past 35 years indicates that Romania's resident population is undergoing a rapid aging process. The effects of this process are already evident in the labor market, the demand for healthcare services, and the public pension system. In the long run, the aging of the resident population will lead to economic stagnation.

During the early stages of the post-Socialist demographic transition, international migration was the dominant factor in the decline of the resident population. However, in recent years, this decline has been largely due to natural causes. Throughout the entire demographic transition, there has been a continuous annual decrease in the number of live births and an increase in the annual number of deaths.

The assessment of massive international migration, as well as the economic and cultural ties maintained by emigrants, is also reflected in the large number of children born to Romanian parents abroad who are subsequently registered in Romania.

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