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## THE RESIDENT POPULATION IS SHOWING AN ALARMING DECLINING TREND

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### Abstract

*The resident population includes all persons of Romanian citizenship, foreign or stateless, who have their habitual residence in Romania for a period of at least 12 months. This means that this population residing in Romania is in fact the population that lives permanently in our country.*

*In this article, the main objective was the possibility to highlight the fact that the resident population in our country is constantly decreasing. We make here a statement in the sense that the population registered by domicile is higher than the resident population in the sense that persons who have declared domicile in Romania, but declare their residence in other countries, cannot be registered as persons permanently residing in our country.*

*In the analysis of this perspective, of the interpretation of the evolution of the resident population, we started from the level registered in January 2021 and we used an appropriate methodology. In this regard, we used the data series with demographic indicators (resident population, population by residence, mortality, birth rate, marriage, divorce, etc.), as well as databases on the structure of the population by age groups, sexes and means. This can be extended by the fact that a comparison can be made in terms of the structure of the population by occupation, qualification, employment, non-employment, employee or unemployed.*

*At the same time, in highlighting the aspects proposed to be highlighted, we used, on a large scale, the graphic representations that are also easy to interpret and understand, as well as the data series related to the aspects subject to research.*

*In the complex part of the resulting calculations, we highlighted the elements that are of interest for understanding the status of the resident population at a fixed date compared to the data recorded in previous periods.*

**Keywords:** *population, residence, residence, natural increase, developments, demographic indicators.*

**JEL classification:** *J10, R10*

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### **Introduction**

The resident population is the most important demographic indicator according to which the perspective of population growth, population structure, labour supply and many other statistical categories that are relevant in an economic analysis can be realized.

In this article, we started from a reference point, namely the population resident on January 1, 2022, based on which we highlighted that compared to previous periods, this population is constantly declining.

We pointed out that the decrease is primarily due to the fact that the stillbirth rate is rising. Stillbirth is the difference between a new born and a person who has died in a given period of time.

At the same time, we deepened the analysis by showing that this aspect leads to an aging population, in the sense that the population aged 65 and over, compared to the young population aged 0-14, is constantly growing in favour of the elderly population.

At the same time, we have shown that the balance of long-term temporary international migration is negative in the sense that, day by day, month by month, year by year, especially for economic reasons, a significant number of people in Romania, who can they maintain their domicile, but are no longer residents, they establish their residence in other states.

Highlighting this aspect shows, using age pyramids, how the population is structured by age, both in total and by both sexes, namely men and women, showing that here we have a deficit in the sense that emigrants, and male and female, predominates over migration.

In this article, we have successively analysed, from simple to complex, based on the data we have, the situation registered in Romania regarding the resident population indicator.

### **Literature review**

The population is evolving according to stillbirth, and in Europe it is declining. From a demographic point of view, the population was in the attention of many researchers. Thus, Anghelache, C. and others (2018) publish an article on the natural movement of the population and the effect on labour. Anghel, M.G. (2018) and others analysed a number of issues regarding the natural movement of the population and the correlation of these indicators with the evolution of the labor force and the filling of vacancies. Bijak J. et al (2007) and Headey D., Hodge A. (2009) turned their attention in their studies to the analysis of the evolution of the world's population and the role of the population in securing labour reserves. Cai J. and Stoyanov A. (2016) were also concerned with analysing the demographic differences that exist between

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countries. Maestas, Mullen and Powell (2016) studied the impact of population aging on labour and, implicitly, on productivity. Oster, Shoulson and Dorsey (2013) are concerned about limited life expectancy and investment in health.

### **Methodology**

For an easier understanding of the study undertaken by the authors in this article, we have structured and further presented the main provisions of the methodology used by the National Institute of Statistics and Eurostat. Thus, the data regarding the demographic phenomena were obtained by processing the information included in the statistical bulletins of live births, deaths, marriages and divorces prepared by the municipal, city and communal town halls, together with the registration of the phenomena in the civil status documents.

Born alive is the product of conception, expelled or completely extracted from the mother's body, regardless of the duration of pregnancy and which, after this separation, shows a sign of life (breathing, heart activity, umbilical cord pulsations or will-dependent muscle contractions).

The deceased is the person whose vital functions have ceased definitively after some time has elapsed since birth.

The natural increase represents the difference between the number of live births and the number of deceased persons in the reference period.

Marriage is a union between a man and a woman, concluded in accordance with the laws of the country, for the purpose of establishing a family and which results in rights and obligations between the two spouses, as well as their children.

Divorce represents the dissolution of a legally concluded marriage, by a final decision of the court, of the registrar or of a notary public. The data refer to the divorce proceedings for which the dissolution of the marriage was allowed.

The domicile of the person is the address at which he declares that he has his main residence, entered in the identity card, as it is recorded in the administrative bodies of the state.

Regular residence is the place where a person normally spends his or her daily rest period, regardless of temporary absences for recreation, vacations, visits to friends and relatives, business, medical treatment, or religious pilgrimage. The habitual residence may be the same as the domicile or it may differ in the case of persons who choose to establish their habitual residence in a locality other than that of domicile in the country or abroad.

The demographic indicators analysed have the following scope: the number of live births includes live births whose mothers had, at the date of

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birth, their domicile or habitual residence for a period of at least 12 months in Romania; The number of deceased includes persons who, at the date of death, had their domicile or habitual residence for a period of at least 12 months in Romania; The number of marriages includes the marriages of persons who had, at the date of concluding the marriage, their domicile in Romania, as well as the marriages of persons of Romanian citizenship who marry abroad and who are registered at the civil status offices in Romania; The number of divorces includes the divorces of persons whose divorces were concluded with judges, marital status or notaries public, in accordance with Law no. 202/2010, as well as the divorces of Romanian citizens who divorced abroad, transcribed in Romania.

The data on the demographic phenomena related to the months of 2021 are provisional, and some on the birth rate and mortality for the year 2020 are semi-final and are distributed according to the date of the demographic event. The data on marriage and divorce for 2020 are final and are distributed according to the date of the demographic event.

#### **Data, results and discussions**

The natural movement of the population materialized on December 31, 2021 is highlighted in accordance with the effect that the health crisis had.

Thus, in the period we are referring to, the year 2021, we find that the population had, in its evolution, some effects imposed by the health crisis.

Thus, on the one hand, there were some deaths in addition to the causes of death that were encountered by 2020.

Of course, most of the deaths caused by COVID 19 should be interpreted in close correlation with the comorbidities experienced by those who ended up in this way.

An analysis carried out in this sense leads to a series of conclusions and, normally, reveals the fact that in Romania, naturally, the population will be in continuous decrease. This will be due, in the first place, to a somewhat stagnant female fertility, with a slight reduction, and it is possible that the side effects of the current health pandemic may be negative in terms of the prospect of female fertility in the future.

Of course, a series of indicators that must be interpreted in this sense give the perspective of the evolution of the resident population in our country.

In this regard, in December 2021 it was found that the number of births was somewhat increasing. Thus, in December 2021 the number of registered births increased both compared to December 2020 and compared to November 2021. In December 2021 the number of deaths decreased both compared to December 2020 and compared to the previous month. The number

of marriages and divorces registered increased in December 2021 compared to both December 2020 and November 2021.

In December 2021 the birth of 16550 children was registered, with 1731 more children than in November 2021, and the number of deaths registered in December 2021 was 27640 (14298 men and 13342 women), with 11013 deaths (5185 men and 5828 women) less than in November 2021. The deaths of children under 1 year of age, recorded in December 2021, were 96 children, increasing by 18 compared to November 2021. The data are structured in table number 1.

### Natural movement of the population (persons)

Table 1

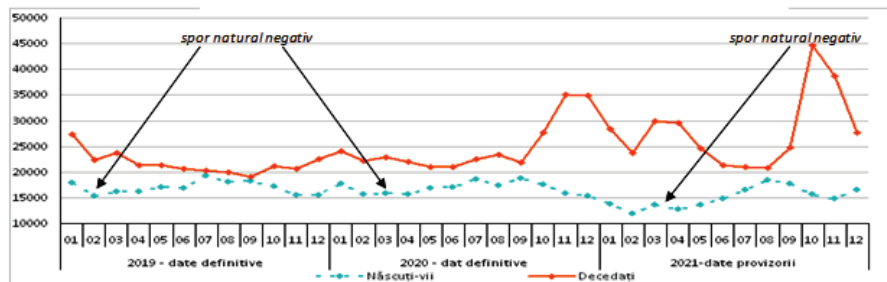
The year Month	Born alive	Deceased	Increase natural	Marriage	Divorces	Deceased under 1 year
<b>2020</b>						
January	17649	24097	-6448	4724	1893	89
February	15749	22216	-6467	6275	2387	113
March	15775	22939	-7164	4115	2077	82
April	15672	21980	-6308	1274	716	91
May	16783	21051	-4268	2544	702	83
June	17007	21067	-4060	5471	2535	85
July	18514	22480	-3966	11415	2406	101
August	17324	23350	-6026	15014	1683	102
September	18718	21842	-3124	12405	2209	90
October	17603	27689	-10086	9632	2270	102
November	15754	35131	-19377	4452	2032	90
December	15301	34809	-19508	4022	1875	79
<b>2021</b>						
January	13852	28390	-14538	4139	713	86
February	11816	23720	-11904	4859	2214	83
March	13606	29899	-16293	5421	2702	91
April	12664	29518	-16854	4443	2421	82
May	13524	24527	-11003	9652	2176	60
June	14877	21337	-6460	11505	2250	75
July	16452	21028	-4576	18139	1948	74
August	18332	20788	-2456	20256	2059	87
September	17749	24737	-6988	15913	2158	92
October	15613	44595	-28982	10335	2014	97
November	14819	38653	-23834	4423	2234	78
December	16550	27640	-11090	5104	2424	96

Source: INS release no. 31/10 February 2022

The situation of deaths and births between January 2019 and December 2021 is presented in figure number 1.

### Evolution of deaths and births between January 2019 and December 2021

Figure 1



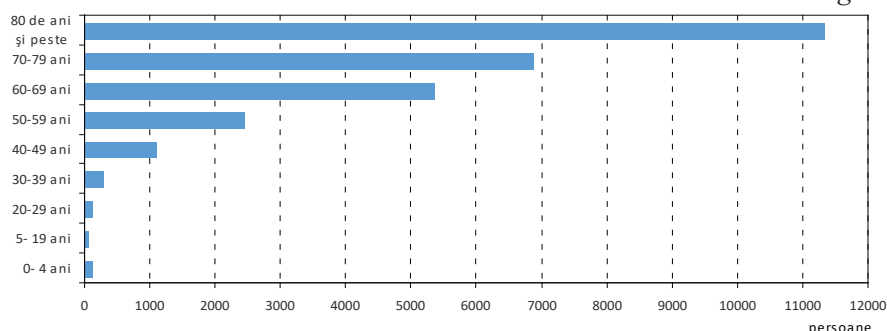
Source: INS release no. 31/10 February 2022

As can be seen in Figure 1, in 2020 the number of deaths increased significantly in October, November and December compared to the same months in 2019, and in January-February 2021 there is a decreasing trend in the number of deaths compared to the last months of 2020, their number still remaining higher than in the same months of the previous year. In the context of the COVID19 pandemic, in October 2021 there was the largest increase in the number of deaths in the entire pandemic period, after a period of decrease of 5 months in the total number of deaths (April-August). The last two months of 2021 have also seen a declining trend in the number of deaths. Data on deaths recorded in December 2021, by age group, are shown suggestively in Figure 2.

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### Deaths recorded in December 2021, by age groups

Figure 2



Source: INS release no. 31/10 February 2022

By December 2021, two-thirds of the total number of deaths occurred in people aged at least 70 years (11,316 deaths, representing 40.9%, in people aged 80 and over; 6,870 deaths, representing 24.9% for people aged 70-79 and 5,346 deaths representing 19.3% for people aged 60-69). On the other hand, the lowest deaths were recorded in the 5-19 age groups (62 deaths), 20-29 years (104 deaths) and 0-4 years (115 deaths).

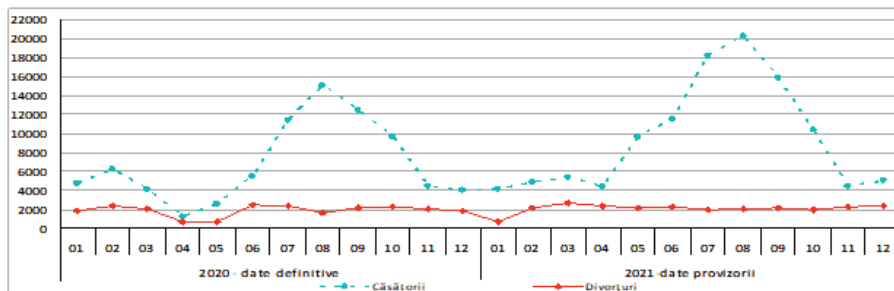
According to the main cause of death, most people who died in December 2021 were caused by: circulatory system diseases (15,185 people, 54.9%); tumours (4,049 people, 14.6%); respiratory diseases (3,954 people, 14.3%). After 3 months in which respiratory diseases were the second leading cause of death, in December 2021 respiratory diseases were the third leading cause of death.

The natural increase remained negative (-11,090) in December 2021, the number of deceased persons being 1.7 times higher than that of live births.

The evolution of the number of marriages and divorces, in the period January 2020 - December 2021 is presented in figure number 3.

**Evolution of the number of marriages and divorces, in the period  
January 2020 - December 2021**

*Figure 3*



Source: INS release no. 31/10 February 2022

We find that in December 2021, 5,104 marriages were registered at the civil status offices, 681 more than in November 2021, and the number of divorces pronounced by final court decisions and according to Law no. 202/2010 was 2,424 in December 2021, 190 more than in November 2021.

The number of marriages in December 2021 was 1,082 higher than in the same month of the previous year. By final court decisions and according to Law no. 202/2010 in December 2021 were pronounced with 549 divorces more than in December 2020.

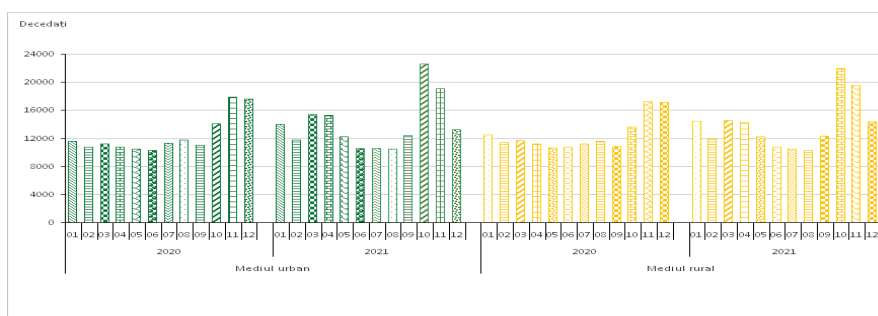
At the end of 2021 compared to December 2020, these demographic indicators had the following evolution: the number of live births registered in December 2021 was higher by 1,249 compared to the same month in 2020; the natural increase was negative both in December 2021 (-11,090 people) and in December 2020 (-19,508 people); the number of people who died in December 2021 was 7,169 lower than in December 2020 (after the first three main causes of death, in December 2021 compared to December 2020, there were 3,713 fewer deaths due to respiratory diseases, with 3,340 fewer deaths due to circulatory system diseases and with 54 more deaths due to tumours); the number of children under one year of age who died was 17 in December 2021 higher than in December 2020.

The evolution of the number of deaths by area of residence, in the period January 2020 - December 2021 is shown suggestively in figure number 3.



**Evolution of the number of deaths by area of residence, in the period  
January 2020 - December 2021**

*Figure 3*



Source: INS release no. 31/10 February 2022

We find that in December 2021, 13,285 people (6,873 men and 6,412 women) died in urban areas, and 14,355 people (7,425 men and 6,930 women) died in rural areas. Compared to the same month in 2020, the number of people who died decreased by 4,350 people (2,723 men and 1,627 women) in urban areas and by 2,819 people (1,639 men and 1,180 women) in rural areas.

The effects of the health crisis on demographic phenomena are visible, especially in the case of deaths which, since June 2020, have shown an upward trend compared to the corresponding months of the previous year, July and August 2021 being the first months of declining deaths compared to the same months as the previous year. In September-November, the increases compared to the corresponding months of the previous year are significant, with October registering the largest increase in the number of deaths. December 2021 saw a decrease in the number of deaths compared to December 2020. In 2020, only February, September, October and November saw an increase in the number of live births compared to the corresponding months of the previous year. In 2021, there was a monthly decrease in the number of live births compared to the same month in the previous year, with the exception of August and December.

Starting with March 2020, there were decreases in the number of events compared to the corresponding months of the previous year for 12 consecutive months, March 2021 being the first month of increase in the number of marriages compared to the same month in 2020, a situation that it was maintained between March and December 2021, with the exception of November, compared to the same month of the previous year.

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### Conclusions

A series of theoretical and practical conclusions can be drawn from the study of this article. First of all, the resident population in Romania is constantly declining. At the same time, due to aging, the population living in Romania decreases at the same rate.

Another conclusion is that, not ensuring the conditions for carrying out the activity in the country, a number of people, often those with high qualifications, emigrate for purely financial-economic reasons. Hence the idea that we must find those means and resources to increase the income of the employed population. Investments must also ensure jobs that provide better living conditions for the population, which, by comparison with the way of remuneration abroad, and the choice of temporary emigration is chosen, which turns into permanent emigration.

At the same time, it must be borne in mind that the employed population is declining, the number of unemployed is increasing and, in this way, as there is no correlation between training and retraining of the workforce, we are seeing an increase in unemployment but, above all, of emigration and in this way we find the paradox that in Romania, although an alarmingly large number, over 3 million citizens have their residence abroad, there is unemployment of about 420,000 people, not taking into account the unemployed population and still no strength work in those areas that require this.

So, by way of comparison and antithesis, Romania has become for some Asian countries (Thailand, Pakistan, Malaysia, etc.), which is for Romanians the Western European countries, ie the need for labour is supplemented by foreign labour who declares his residence in Romania.

### References

1. Anghelache, C., Avram, D., Burea, D., Olteanu (Petre) A. (2018). *Analiza mișcării naturale a populației și a evoluției forței de muncă*, Revista Română de Statistică - Supliment, vol.2018, nr.2, pag.106 -114
2. Anghel, M.G., Anghelache, C., Avram, D., Burea, D., Marinescu, A.I. (2018). *Aspecte privind mișcarea naturală a populației, forța de muncă și locurile vacante din economie*, Revista Română de Statistică - Supliment, vol.2018, nr.11, pag.48-59
3. Bijak, J. et al (2007). *Population and labour force projections for 27 European countries, 2002-052: impact of international migration on population ageing*. European Journal of Population, (23) 1, March 2007, 1-31
4. Cai, J., Stoyanov, A. (2016). Population aging and comparative advantage. Journal of International Economics, 102, 1-21
5. Headey, D., Hodge, A. (2009). The Effect of Population Growth on Economic Growth: A Meta-Regression Analysis of the Macroeconomic Literature. Population and Development Review, 35 (2), 221-248

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6. Maestas, N., Mullen, K., Powell, D. (2016). *The effect of population ageing on economic growth, the labor force and productivity*. National Bureau Of Economic Research, Cambridge, Working Paper no. 22452
7. Oster, E., Shoulson, I., Dorsey, E. (2013). *Limited Life Expectancy, Human Capital and Health Investments*. American Economic Review, 103 (5), 1977–2002
- \*\*\* <https://insse.ro/cms/ro>
- \*\*\* <https://ec.europa.eu/eurostat>