# ANALYSIS OF DEMOGRAPHIC TRENDS IN CENTRAL AND EAST EUROPEAN COUNTRIES

## *ANALIZA TENDINȚELOR DEMOGRAFICE IN ȚĂRILE EUROPEI CENTRALE SI DE EST*

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**Abstract.** *Republica Moldova, în special în ultimii 8 ani se confruntă cu o descreştere substanţială a populaţiei. Pentru a crea o perspectivă mai cuprinzătoare ał proceselor demografice din RM, această cercetare îşi propune să analizeze comparativ dinamica demografică a altor 5 ţări din Europa Centrală şi de Est, aflate în vecinătate cu Republica Moldova: Ungaria, Republica Slovacă, Belgia, Macedonia de Nord, Lituania. Ca rezultat, acest studiu îşi propune să identifice dificultăţile şi soluţiile ţărilor in cauză. În final se va încerca presupunerea relevanţei acestora în cazul Republicii Moldova.*

**Cuvinte cheie:** *Creşterea populaţiei, spor natural, migraţie, rata totală a fertilităţii.*

**JEL CLASSIFICATION: J11, J13, J21**

### INTRODUCTION

The Republic of Moldova, due to its unique historical background, geographical location and political and administrative policies, is characterized as one of the countries with the fastest population declines. This, generally is due to high emigration and/or a natural decrease rate. To better understand the case of Republic of Moldova, we have chosen to compare it to some CEE neighboring countries as: Hungary, The Slovak Republic, Bulgaria, North Macedonia, Lithuania.

This paper aims to analyze the population dynamic over the years, and some policies that countries can apply to improve it. The key aspects refer to analysis of following indicators:

- Population growth
- Migration
- Fertility rates
- The natural increase/decrease rate
- Percentage of people ages 65 and above in the total population

As a result of comparing these indicators, we will be able understand more clearly the position of Moldova, and conclude why some foreign policies might have a positive impact or fail to improve the economy.

### BASE CONTENT

One of the most interesting sources of information regarding the economic development of a country is its population growth. Generally, we assume that a developing country has a higher

population growth. In the last 25 years, almost all the world population growth happened in developing economies**.** Moldova is considered as a developing country according to IMF reports. Further we will analyze how this is reflected in its demographics.

Republic of Moldova's population loss is described by two phenomena. First, an increase in the number of migrants due to the liberalization of visas in the third stage of the migration phenomenon (2001-2006), accentuated again in the fifth stage (2015-present) by circulation in the European Union, based on biometric passports. (28/04/2015).  (Mihai Hachi (coordonator), 2022) Secondly, the decrease in birth to death ratio (natural increase rate of 0.4 in 2014 to -6.2 in 2021), and the ageing of population (average age in the whole country of 37.4 in 2014 to 39.8 in 2021), partially due to educational brain drain and rural decline, along with decreased fertility (Total fertility rate (TFR) from 1.82 in 2014 to 1.79 in 2021). Economic uncertainty along with unemployment and job are considered factors of decreased fertility rates.  (CORDIS, n.d.) Moldova's population was predicted to reach as low as 2085.8 thousand by 2035, with a growth between -1.1% and -2% each year. Only by rising TFR to 2.1, Moldova would be able to maintain a constant population of 2567,9 thousand. (Gagauz Olga (coord.), 2016). Instead, the COVID-19 pandemic shifted population growth to -0.76 in 2021, reaching 2015 growth values (Table 1). From the table we can see that Moldova has had the greatest decrease of population in the period 2015-2021 compared to the selected countries.

**Table 1. Population dynamics 2015-2021in C.E.E. countries**

| Population 2015-2021 | Republic of Moldova | Hungary | Slovak Republic | Bulgaria | North Macedonia | Lithuania |
|---|---|---|---|---|---|---|
| 2015 | 2,835,978 | 9,843,028 | 5,423,801 | 7,177,991 | 2,070,226 | 2,904,910 |
| 2018 | 2,707,203 | 9,775,564 | 5,446,771 | 7,025,037 | 2,076,217 | 2,801,543 |
| 2021 | 2,615,199 | 9,709,891 | 5,447,247 | 6,877,743 | 2,065,092 | 2,800,839 |
| **Overall growth** | -8% | -1% | 0% | -4% | 0% | -4% |
| **Last year growth (%)** | -0.76 | -0.41 | -0.21 | -0.81 | -0.42 | 0.21 |
| **Worst year** | **2018** | **2021** | **2021** | **2021** | **2021** | **2017** |
| **Worst year value (%)** | -1.76 | -0.41 | -0.21 | -0.81 | -0.36 | -1.40 |
| **Best year (%)** | **2021** | **2019** | **2017** | **2020** | **2015** | **2021** |
| **Best year value (%)** | -0.76 | -0.05 | 0.16 | -0.60 | 0.13 | 0.21 |
| **2021 natural increase rate** | -6.2 | -6.4 | -3.1 | -13.2 | -5.4 | -24.4 |

*Source: elaborated by author based on data from World Bank and respective Bureaus of Statistics (The World Bank , n.d.). Last accessed 20/03/2023*

In the case of Hungary, migration has increased the population. A specific characteristic of Hungary in international migration is its state as a transit country, for immigrants in the West of Europe. Still the number of foreigners choosing Hungary as their permanent residency is high. "In 2017, nearly three times more foreign nationals requested Hungarian citizenship than the number of Hungarians who emigrated from the country and requested the citizenship of another country." (Eurydice, n.d.) Thus, for Hungary the key factor in population loss is the natural increase rate. Some of the policies meant to regulate these were: A new family tax allowance introduced in 2011. A lavish support in 2016 for three children families providing 32,250 EUR support and another 32,250 EUR credit when buying homes. From 2018 any family with three or more children and with a mortgage on their home is allowed to deduct 3,200 EUR from their debt after the birth of their third child, repeated for each subsequent child. Additionally, mothers with student loans have their loan suspended, halved, and dismissed based on the number of children, three being the dismissal point. (ALBERT, 2018) From 2012 onwards the TFR started to increase, demonstrating apparent effects of the family support system, as the TFR reached 1.56 in 2020. "However, considering the tempo-adjusted total fertility rate TFR* (takes into account children who would have been born if women's childbearing age had been the same as before) this can lead to a different conclusion, as in the period

of recuperation TFR* gradually reaches TFR. The fertility rate in Hungary increased by only 0.33 between 2011 and 2020. This is far from the replacement rate of 2.1." (Berde, 2022) Figure 2 shows the fertility
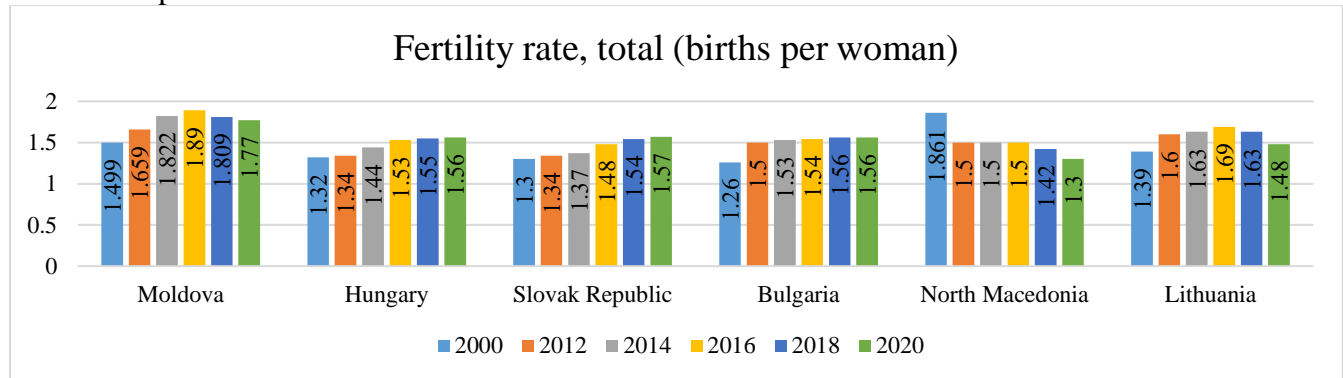rate for the period 2000-2020.



**Figure 1. Total Fertility Rate 2000-2020 in C.E.E countries**
*Source: elaborated by author based on data from World Bank, last accessed 20/03/2023.*

In Slovakia natural increase rate has remained positive since 2011, yet the pandemic brought it down for the year 2021, a population increase only being possible with the addition of migration balance. Labor force population started decreasing in 2011. The changes in age group compositions are attributed to population ageing. The year 2021 followed the same trend. (Euridyce, n.d.) "The old-age dependency ratio is projected to increase substantially and surpass the EU average by 2050. At the same time, ageing will result in lower tax revenues because less people will be active in the labor market. This is a particular concern in Slovakia as the country's tax mix is heavily reliant on social security contributions on labor income." (Hwang, 2022). Some of the specifics of the Slovakian pension system include: A minimum pension introduced in 2015. It requires 30 years of contributions on annual earnings of at least 24.1% of the average wage. The options of voluntary/ private pension schemes. Early retirement of mothers (6 months per child). A Christmas bonus (2019) that became the 13th pension in early 2020.

One of the problems that Slovakia is facing is low participation of mothers in the labor force, due to low incentives and an above European average paid leave. Due to benefit losses and public nursery fees mothers with 60% revenue of the national average wage would lose 80% of working benefits and those at 40% of the national avg. would be below costs. The process is also worsened because of poor coordination between parental (fixed) and childcare allowance (variable), as choosing one omits the other. Shortening the duration of parental leave, or introducing flexible schemes could be a solution, as after extended periods of leave, women find it harder to re-enter the labor market. (Hwang, 2022).

Being the poorest country in EU, Bulgaria has seen one of the highest population declines in the world. It is projected to lose up to 23% of its population by 2050. Even though the decline in birth rates is the main factor Bulgaria compared to EU members, we also notice high emigration rates. 1.1 million Bulgarians living abroad remain there due to economic uncertainty. (Hruby, 2019). As a result, Bulgaria is also fighting population aging (Figure 2), average population age reaching 43.8 years in 2018. One of its specifics is a big difference between percentage of female and male population over 65 years. This is due to high mortality rates in male population. In 2019-2020 Bulgaria has eased immigration restrictions to better align with EU standards.

North Macedonia, like Hungary, is generally considered a transit country. Is the corridor between Greece and Serbia. In 2019, according to the United Nations, there were 131,175 immigrants

in North Macedonia. Human trafficking is high, a person trafficked from Greece to Serbia values between 500 to 1500 EUR. "The National Commission for Combating Trafficking in Human Beings and                Illegal                Migration                is
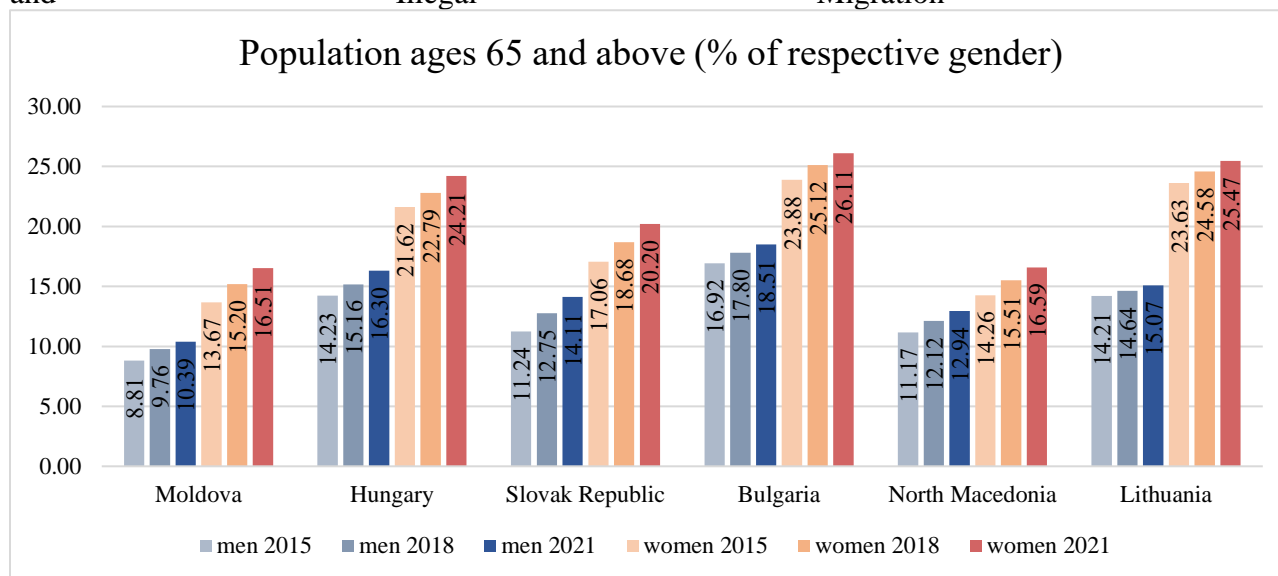


**Figure 2. Population of age 65 and above, men and women, share in total population**
*Source: elaborated by author based on data from World Bank, last accessed 20/03/2023*

responsible for developing and implementing the National Strategy for Combating Human Trafficking and Illegal Migration. The National Commission, composed of 12 government agencies, meets regularly to publish reports on anti-trafficking efforts and to develop the National Action Plans to combat human trafficking." (Country Profiles North Macedonia, n.d.). From a labour force perspective, more than half of the population in 2019 was inactive, with 15–24-year-olds having a labor participation rate of only 31%. (OECD, 2021).

Lithuania is close with Bulgaria as one of the countries with the fastest population losses. Emigration has had a powerful impact, creating a negative migration balance. The COVID-19 pandemic reversed the balance, as many Ukrainians and Belarusians arrived in the search for jobs. Many Lithuanians also returned, partially also due to Brexit. The main concern lies in birth rates. As we can see in figure 1, fertility rates have decreased at a catastrophic rate. The reasons for this are, from a long-term perspective, the decisions of couples not to birth children, (at all, not second or third), due to increasing housing costs, and short-term, the COVID-19 pandemic that postponed marriages, which in Lithuania is an important factor in birth rates. The number of mothers at childbearing age could reach just 400.000 by 2050 (900.000 in 2004). According to projections, by 2050 Lithuania could have a population of 2 million. (Mažutaitienė, 2022)

**CONCLUSION**

By examining these 5 countries a plethora of different demographic problems, and some unique responses to these problems have been identified. Some regional trends were observed in the decrease of fertility, birth rate and population growth, and in each economic uncertainty, increased housing costs, poor family policies and weak migration management led to accelerated loss of population. The Republic of Moldova still has a fertility rate higher than the European average, and as migration is prognosticated to normalise in the next few years, with proper incentives, RM could maintain a comfortable population in the long run (compared to some other countries analyzed).

It seems the aftereffects of the COVID-19 pandemic could become beneficial, if return migrants could be convinced to remain in the country. Perhaps supports for young families, like in Hungary, would help. Long-term we would need to expand our labor force by allowing parents to be more productive. To further incentivize the population growth, reforming the pension system could reduce economic uncertainty, and increase birth rates. It is worth regarding Slovak Republic's example for this. It is important to consider the properness of these directions, though, as no country is the same.

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