DEMOGRAPHIC LABYRINTH OR...?

DOI: 10.52174/2579-2989_2021_6_79

Keywords: demographic situation, population aging, birth, fertility rate, migration

The aging population, declining birth rates, international migration in the recent decades, as well as the COVID-19 pandemic in the last two years have been the hot topic of news outlets. While observing the changes in the demographic processes from different points of view, it becomes clear that it has created many issues in almost all countries.

Unlike other issues, which are solved mainly by the country's level of financial resources, the challenge of the demographic issues is that they are mostly influenced by religious and cultural characteristics and changes in the mindset and behavior of the population over time.

Therefore, when creating a demographic policy, one should consider that each event loses its attractiveness over time and ceases to serve its main purpose. So measures to improve the demographic situation need to be regularly monitored and reviewed.

rends in world population growth. At present, the world population is about 7.9 billion. According to UN forecasts, it will increase by 3 billion, reaching 10.9 billion by the end of the 21st century (average forecast).

Between 1950 and 2020, the population of more developed regions increased about 1.6 times, and in less and least developed regions 3.8 times and 5.4 times



Lusine KARAPETYAN

PhD in Economics, Associate Professor

In 2002 she has graduated from ASUE with honors. In 2013 she has received a Ph.D. in Economics. From 2010 to 2015 he worked as an assistant professor, and since 2016 she is an associate professor at the chair of Business Administration. From 2013 to 2014 she has been involved as a researcher of "Issues of Social Sphere" in the Scientificresearch Group of Amberd Research center, Armenian State University of Economics. From 2015 to 2016 she has been conducted research on "Motivation in Higher Education" within a Scientific-Research Group of Amberd Research center. She has taught at Miskolc University, Poznan University of Economics and Business and Bialystok University of Technology (Teaching Staff Mobility, Erasmus). Since 2019 she is a Member of the Editorial Board of Nepalese Journal of Insurance and Social Security. She is the author and co-author of about thirty scientific publications.

https://orcid.org/0000-0002-3894-4803

World Population Prospects 2019 Highlights, UN-Population Division, https://population.un.org/wpp/Publications/Files/WPP2019_Highlights.pdf, p. 5.

TABLE 1

The world's ten most populated countries from 1950 to 2050²

| Rank Country Rank Country Rank Country 1. China 1. China 1. China 2. India 2. India 2. India 3. The United States 3. The United States 3. The United States 4. Russia 4. Indonesia 5. Brazil 6. Germany 6. Japan 6. Russia 7. Indonesia 7. Brazil 7. Japan 8. Brazil 8. Germany 8. Pakistan 9. Great Britain 9. Bangladesh 9. Bangladesh 10. Italy 10. Pakistan 10. Nigeria 10. Italy 10. Pakistan 10. Nigeria 10. Italy 10. Pakistan 10. Nigeria 10. Nigeria 10. Nigeria 10. Nigeria 10. | | 1950 | | 1970 | | 1990 |
|--|--|--|--|--|--|---|
| 2. India 2. India 2. India 3. The United States 3. The United States 4. Indonesia 5. Indonesia 4. Indonesia 5. Brazil 6. Russia 6. Russia 7. Japan 6. Russia 7. Japan 6. Russia 7. Japan 8. Pakistan 7. Japan 8. Pakistan 9. Bangladesh 9. Country Rank Rank Country Rank Rank Rank change to 2020 2050* </th <th>Rank</th> <th>Country</th> <th>Rank</th> <th>Country</th> <th>Rank</th> <th>Country</th> | Rank | Country | Rank | Country | Rank | Country |
| 3. The United States 3. The United States 4. Russia 4. Russia 5. Japan 5. Brazil 6. Germany 6. Japan 6. Russia 7. Indonesia 7. Brazil 7. Japan 8. Brazil 8. Germany 8. Pakistan 9. Great Britain 9. Bangladesh 9. Bangladesh 10. Italy 10. Pakistan 10. Nigeria 2000 2020 2050* Rank Country Rank Country Rank Rank change to 2020 1. China 1. India 1. India +1 2. India 2. India 2. China -1 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Brazil 6. <td>1.</td> <td>China</td> <td>1.</td> <td>China</td> <td>1.</td> <td>China</td> | 1. | China | 1. | China | 1. | China |
| 4. Russia 4. Indonesia 5. Brazil 5. Japan 5. Brazil 6. Russia 7. Indonesia 7. Brazil 7. Japan 8. Brazil 8. Germany 8. Pakistan 9. Great Britain 9. Bangladesh 9. Bangladesh 10. Italy 10. Pakistan 10. Nigeria 2000 2020 2050* Rank Country Rank Rank change to 2020 1. China 1. India +1 2. India 1. India +1 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Brazil 6. Indonesia -2 7. Pakistan 7. Nigeria 7. Brazil -1 8. Bangladesh 8. Bangladesh 8. <td>2.</td> <td>India</td> <td>2.</td> <td>India</td> <td>2.</td> <td>Ind ia</td> | 2. | India | 2. | India | 2. | Ind ia |
| 5. Japan 5. Indonesia 5. Brazil 6. Germany 6. Russia 7. Indonesia 7. Brazil 7. Japan 8. Brazil 8. Germany 8. Pakistan 9. Great Britain 9. Bangladesh 9. Bangladesh 10. Italy 10. Pakistan 10. Nigeria 2000 2020 2050* Rank Country Rank Rank change to 2020 1. China 1. India +1 2. India 1. India +1 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Indonesia -2 7. Prazil -1 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | 3. | The United States | 3. | The United States | 3. | The United States |
| 6. Germany 6. Japan 6. Russia 7. Indonesia 7. Brazil 7. Japan 8. Brazil 8. Germany 8. Pakistan 9. Great Britain 9. Bangladesh 9. Bangladesh 10. Italy 10. Pakistan 10. Nigeria 2000 2020 2050* 2050* Rank Country Rank Rank change to 2020 1. China 1. India +1 2. India 2. China -1 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Indonesia -2 7. Pakistan 7. Brazil -1 8. Bangladesh 8. Bangladesh 8. Ethiopia 9. Japan | 4. | Russia | 4. | Russia | 4. | Indonesia |
| 7. Indonesia 7. Brazil 7. Japan 8. Brazil 8. Germany 8. Pakistan 9. Great Britain 9. Bangladesh 9. Bangladesh 10. Italy 10. Pakistan 10. Nigeria 2000 2020 2050* 2020* 2020* Rank Country Rank Rank change to 2020* 1. India 1. India +1 1. India +1 1. India +1 2. China -1 3. India +1 2. China -1 3. Nigeria +4 4. Indonesia 4. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Pakistan 5. Pakistan 6. Indonesia -2 7. Pakistan 7. Brazil -1 8. Bangladesh 8. Ethiopia 9. Congo Dem. Rep. | 5. | Japan | 5. | Indonesia | 5. | Brazil |
| 8. Brazil 8. Germany 8. Pakistan 9. Great Britain 9. Bangladesh 9. Bangladesh 10. Italy 10. Pakistan 10. Nigeria 2000 2050* Rank Country Rank Rank change to 2020 1. China 1. India +1 2. India 2. China -1 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Brazil -1 6. Indonesia -2 7. Pakistan 7. Nigeria 7. Brazil -1 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | 6. | Germany | 6. | Japan | 6. | Russia |
| 9. Great Britain 9. Bangladesh 9. Bangladesh 10. Italy 10. Pakistan 10. Nigeria 2000 2020 2050* Rank Country Rank Rank change to 2020 1. China 1. India +1 2. India 2. China -1 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 6. Russia 6. Brazil 6. Indonesia -2 7. Pakistan 7. Nigeria 7. Brazil -1 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | 7. | Indonesia | 7. | Brazil | 7. | Japan |
| 10. Italy 10. Pakistan 10. Nigeria 2000 2050* Rank Country Rank Rank change to 2020 1. China 1. India +1 1. India +1 2. India 2. India 2. China -1 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Brazil 6. Indonesia -2 7. Pakistan 7. Nigeria 7. Brazil -1 8. Bangladesh 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | 8. | Brazil | 8. | Germany | 8. | Pakistan |
| Rank Country Rank Country Rank change to 2020 1. China 1. India 1. India +1 2. India 2. China -1 3. Nigeria +4 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Brazil 6. Indonesia -2 7. Pakistan 7. Nigeria 7. Brazil -1 8. Bangladesh 8. Ethiopia 9. Japan 9. Congo Dem. Rep. | 9. | Great Britain | 9. | Bangladesh | 9. | Bangladesh |
| Rank Country Rank Country Rank Rank change to 2020 1. China 1. India +1 2. India 2. China -1 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Brazil 6. Indonesia -2 7. Pakistan 7. Nigeria 7. Brazil -1 8. Bangladesh 8. Ethiopia 9. Japan 9. Congo Dem. Rep. | 10. | Italy | 10. | Pakistan | 10. | Nigeria |
| 1. China 1. India +1 2. India 2. China -1 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Brazil 6. Indonesia -2 7. Pakistan 7. Nigeria 7. Brazil -1 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | | 2000 | | 2020 | | 2050* |
| 2. India 2. China -1 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Brazil 6. Indonesia -2 7. Pakistan 7. Nigeria 7. Brazil -1 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | | | | | | |
| 3. The United States 3. Nigeria +4 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Brazil 6. Indonesia -2 7. Pakistan 7. Brazil -1 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | Rank | Country | Rank | Country | Rank | Rank change to 2020 |
| 4. Indonesia 4. The United States -1 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Brazil 6. Indonesia -2 7. Pakistan 7. Nigeria 7. Brazil -1 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | | | | , | | |
| 5. Brazil 5. Pakistan 5. Pakistan 6. Russia 6. Brazil 6. Indonesia - 2 7. Pakistan 7. Nigeria 7. Brazil - 1 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | 1. | China | 1. | China | 1. | India +1 |
| 6. Russia 6. Brazil 6. Indonesia -2 7. Pakistan 7. Nigeria 7. Brazil -1 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | 1. 2. | China India | 1. 2. | China India | 1. 2. | India +1 China -1 |
| 7. Pakistan 7. Nigeria 7. Brazil -1 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | 1. 2. 3. | China India The United States | 1. 2. 3. | China India The United States | 1. 2. 3. | India +1 China -1 Nigeria +4 |
| 8. Bangladesh 8. Bangladesh 8. Ethiopia 9. Japan 9. Russia 9. Congo Dem. Rep. | 1. 2. 3. 4. | China India The United States Indonesia | 1. 2. 3. 4. | China India The United States Indonesia | 1. 2. 3. 4. | India +1 China -1 Nigeria +4 The United States -1 |
| 9. Japan 9. Russia 9. Congo Dem. Rep. | 1. 2. 3. 4. 5. | China India The United States Indonesia Brazil | 1. 2. 3. 4. 5. | China India The United States Indonesia Pakistan | 1. 2. 3. 4. 5. | India +1 China -1 Nigeria +4 The United States -1 Pakistan |
| | 1. 2. 3. 4. 5. | China India The United States Indonesia Brazil Russia | 1. 2. 3. 4. 5. | China India The United States Indonesia Pakistan Brazil | 1. 2. 3. 4. 5. | India +1 China -1 Nigeria +4 The United States -1 Pakistan Indonesia -2 |
| 10. Nigeria 10. Mexico 10. Bangladesh -2 | 1. 2. 3. 4. 5. 6. | China India The United States Indonesia Brazil Russia Pakistan | 1. 2. 3. 4. 5. 6. | China India The United States Indonesia Pakistan Brazil Nigeria | 1. 2. 3. 4. 5. 6. | India +1 China -1 Nigeria +4 The United States -1 Pakistan Indonesia -2 Brazil -1 |
| | 1. 2. 3. 4. 5. 6. 7. | China India The United States Indonesia Brazil Russia Pakistan Bangladesh | 1. 2. 3. 4. 5. 6. 7. | China India The United States Indonesia Pakistan Brazil Nigeria Bangladesh | 1. 2. 3. 4. 5. 6. 7. | India +1 China -1 Nigeria +4 The United States -1 Pakistan Indonesia -2 Brazil -1 Ethiopia |

respectively.³ During the observed period, due to different population growth rates, the ten countries with the largest populations in the world changed.

In 1950, the top ten countries with the largest population in the world started with China and ended with Italy, and in 2020 Mexico took the last spot of the top 10 countries: China in the lead with a population of about 1.4 billion and Mexico last with 129 million. Italy, Great Britain, Germany, and Japan are left out of the top ten countries with the largest population. According to UN forecasts, by 2050, India will be the world leader with its population size, while Russia and Mexico will be replaced by other countries (Table 1).

According to a UN report, more than half

of the projected global population growth by 2050 will be concentrated in India, Nigeria, Pakistan, the Democratic Republic of the Congo, Ethiopia, Tanzania, Indonesia, Egypt, and the United States. According to the same source, shortly, in 2027, India will overtake China as the world's most populous country and will continue to maintain its position in 2050.4

In fact, to prevent the rapid growth of the population in 1979, China imposed legislative restrictions on the number of family members and began implementing the "One family, one child" policy. This was officially abolished in 2015 and replaced by the "Two Children" policy in 2016. However, in 2020, the census showed that the birth rate in China is unprecedentedly low (the

² The table was created by the data of the following source: https://population-un-org/wpp/Download/Standard/Population/

UN, average forecast-

³ Population Database, UN, 1950-2020, https://population.un.org/wpp/Download/Standard/Population/

UN, Department of Economic and Social Affairs, https://www.un.org/development/desa/en/news/population/world-population-prospects-2019.html

Martin King Whyte, The End of One-Child Policy and China's Demographic Challenges, https://www.chinausfocus.com/society-culture/the-end-of-one-child-policy-and-chinas-demographic-challenges

overall birth rate in 2020 was the lowest in the last 50 years at 11.3 %).6

According to UN forecasts, in 2050 more than 25% of China's population will be over the age of 65, indicating the country's rapidly aging population.⁷ Therefore, the Chinese government had to take measures to increase the birth rate. In 2021, the "Three Children" policy was announced in late May.⁸

While the Chinese family planning restrictions may be considered a unique episode in human history, it teaches us an important lesson that is relevant for the future of human reproduction: personal family size ideals can be greatly influenced by changing norms and social interaction and there can be situations for large populations in which the ideal – now voluntarily chosen and freely expressed – is heavily centered around just one (surviving) child.⁹

Therefore, before making detrimental decisions on demographic policies, governments must carefully analyze and assess all risks, continuously follow changes and develop appropriate preventive and incentive measures accordingly and timely, otherwise there can be serious and even catastrophic consequences that impact the country.

"An Aging World". Data on population aging and forecasts for 2030 and 2050 are presented in the "Population aging, alternative measures of dependency and implications for the future of work" Working Paper 5 of ILO. According to data of 2020, as well as forecasts of 2030, using the rate of population aging in the world's 193 countries* (rate of aging = the percentage of people 65 and over within the total population), Japan is in

the first place, however by 2050 it will be in the second replaced by the Republic of Korea with a rate of 38.1%.¹⁰

According to the 2020 data, about 50% of the countries located in East Asia and the Pacific have crossed the 7% aging scale, and per the 2050 forecasts, about 91% of those countries will cross that scale.

In 2050, of the eight South Asian countries, the Islamic Republic of Afghanistan will be the only one without an aging issue.

In 2020 the country with the oldest population in Europe and Central Asia is Italy with 22.3%. It should be noted that in 2020 Armenia (11.8%) ranks 41st out of 48 countries in Europe and Central Asia and 63rd out of 193 countries. In 2050, the share of people aged 65 and above will reach 21.4% in Armenia. Europe and Central Asia will have the oldest populations, as almost 92 percent of countries in the region will have aged.¹¹

In 2020, the United Arab Emirates had the youngest population in both the Middle East and North Africa and of the 193 countries surveyed it's in the last place at 1.26% of its 65 and over age group population. But by 2050, it will reach 99th place with 16.1% of the population of age 65 and over and will categorize as an "aged" society.¹²

According to ILO in 2020, the 65 and over age group is at 10% of the population in all the 34 Latin American countries. However, in contrast to other regions, where the population above 65 tends to grow, an opposite picture is observed in these countries. For example, in 2030 the number of elderly is projected to decrease by

⁶ Andrew Mullen, Three-child policy: how many children can you have in China?, Published: 5 Jun, 2021, The worlds

Ten most populated countries from 1950 to 2050UN, Department of Economic and Social Affairs, https://www.un.org/development/desa/en/news/population/world-population-prospects-2019.html

Three-child policy: China lifts the cap on births in major policy shift by David Stanway and Tony Munroe, https://www.reuters.com/world/china/china-says-each-couple-can-have-three-children-change-policy-2021-05-31/

Basten S., Lutz W., Scherbov S., Very long range global population scenarios to 2300, https://www.demographic-research.org/volumes/vol28/39/, p. 1150.

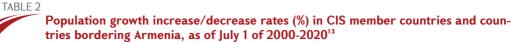
Harasty, C., Ostermeier, M. 2020. POPULATION AGEING: Alternative measures of dependency and implications for the future of work; ILO Working Paper 5 (Geneva, ILO),

https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_747257.pdf, p.39-45.

^{*} Drawing from Oizumi et al. (2006), a country is categorized as an "aged" society when the share of persons aged 65 years and overreaches 14 percent or more of the total population, as "aging" when it accounts for between 7 and 14 percent, and as "not aged" when it constitutes less than 7 percent of the total.

[&]quot; Harasty, C., Ostermeier, M. 2020. POPULATION AGEING: Alternative measures of dependency and implications for the future of work; ILO Working Paper 5 (Geneva, ILO), p. 6.

¹² According to Annex of, ILO Working Paper 5, p. 41.



| | 0 | | | • | | | | | |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2000 | 2005 | 2010 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Armenia | -0,62 | -0,71 | -0,2 | 0,41 | 0,33 | 0,27 | 0,22 | 0,19 | 0,18 |
| Georgia | -1,82 | -0,43 | -0,47 | -0,25 | -0,19 | -0,16 | -0,15 | -0,17 | -0,21 |
| Azerbaijan | 0,88 | 1,06 | 1,23 | 1,2 | 1,14 | 1,09 | 1,02 | 0,94 | 0,87 |
| Iran | 1,26 | 1,15 | 1,16 | 1,34 | 1,37 | 1,39 | 1,37 | 1,32 | 1,26 |
| Turkey | 1.51 | 1.29 | 1.47 | 1.66 | 1.62 | 1.55 | 1.41 | 1.20 | 0.96 |
| Russia | -0,34 | -0,24 | 0,13 | 0,21 | 0,19 | 0,16 | 0,12 | 0,07 | 0,01 |
| Belarus | -0,57 | -0,52 | -0,1 | 0,07 | 0,06 | 0,04 | 0,01 | -0,02 | -0,05 |
| Tajikistan | 1,6 | 1,92 | 2,21 | 2,43 | 2,46 | 2,46 | 2,42 | 2,34 | 2,25 |
| Turkmenistan | 1,09 | 1,12 | 1,63 | 1,76 | 1,7 | 1,64 | 1,58 | 1,52 | 1,46 |
| Uzbekistan | 1,41 | 1,37 | 1,6 | 1,64 | 1,64 | 1,62 | 1,57 | 1,51 | 1,43 |
| Kazakhstan | -0,37 | 0,98 | 1,38 | 1,5 | 1,43 | 1,35 | 1,29 | 1,23 | 1,18 |
| Moldova | -0,46 | -0,26 | -0,22 | -0,09 | -0,14 | -0,17 | -0,2 | -0,22 | -0,24 |
| Ukraine | -0,91 | -0,65 | -0,38 | -0,44 | -0,49 | -0,53 | -0,56 | -0,58 | -0,6 |
| Kyrgyzstan | 1,03 | 0,84 | 1,69 | 1,93 | 1,9 | 1,86 | 1,79 | 1,72 | 1,63 |

30-50% in each country compared to 2020, and in 2050, compared to 2030, there will be another increase, but the observed indicator will not exceed 2020 numbers.

In North American countries, the aging of the population is also recorded to be an issue.

Sub-Saharan Africa is considered to have the youngest population. Currently, only two of the 48 countries in that region (Mauritius and Seychelles) have an aging population.14 The demographic trends of CIS member countries and countries bordering Armenia. The indicators representing the demographic trends of the CIS member countries bordering Armenia indicate that as of July 1, 2020, the population growth rate was only 1-2% in Muslim countries: Tajikistan, Kyrgyzstan, Kazakhstan, Turkmenistan, Uzbekistan, Iran, and in Azerbaijan and Turkey the growth rate was a little lower than 1% at 0.87% and 0.96% respectively. During the same period, population decreases were registered in Georgia, Moldova, Belarus, and Ukraine, and in Armenia, there was a slight increase of 0.18% (Table 2).

The 2020 analysis of fertility rates in CIS member states bordering Armenia shows that Tajikistan, Kazakhstan, Kyrgyzstan,

Turkmenistan have extended reproduction, while Iran, Georgia, Azerbaijan, and Turkey have simple reproduction, and Russia, Armenia, Belarus, Ukraine and Moldova have declining reproduction (Table 3).

Specifically, the fertility rate was recorded 1.44 in 2000, however, in 2005 it decreased (1,22). In 2020 the fertility rate was 1,28.

Ukraine also has a rather low fertility rate. In 2020, compared to 2000, there is a slight improvement in the coefficient, but it is still far enough to reach a simple reproduction rate. As for Russia and Armenia, both have slow improvements. However, we should not forget that Armenia's indicators are presented before the 44-day Artsakh war.

Besides, no one could have imagined that the COVID-19 pandemic would become an integral part of our lives, the impact of its "end" is still unpredictable, so it is difficult to determine its effect on reproductive behavior.

Globalization and the disproportioned development of countries contribute to the growing volume of emigration from developing countries, of which the CIS member states are no exception. Migration has an impact on the population's birth rate (Table 4).

UAccording to Annex of, ILO Working Paper 5, p. 44-45.

The table was made according to the following source: https://knoema.com/atlas/topics/Demographics/Population-Population-growth-rate, https://blogs.worldbank.org/opendata/new-world-bank-country-classifications-income-level-2021-2022

TABLE 3

Fertility rates in CIS member countries and countries bordering Armenia, as of July 1 of $2000\text{-}2020^{15}$

| Country | Income group | Region | 2000 | 2005 | 2010 | 2015 | 2020 |
|--------------|-------------------------|---------------------------------|-----------|--------|------|------|------|
| | | | Fertility | y rate | | | |
| Tajikistan | lower-middle- income | Europe and Central Asia | 3,97 | 3,62 | 3,6 | 3,62 | 3,52 |
| Kyrgyzstan | lower-middle- income | Europe and Central Asia | 2,66 | 2,57 | 3,08 | 3,2 | 2,91 |
| Kazakhstan | upper-middle income | Europe and Central Asia | 1,92 | 2,26 | 2,64 | 2,74 | 2,71 |
| Turkmenistan | upper-middle income | Europe and Central Asia | 2,82 | 2,65 | 2,83 | 2,93 | 2,70 |
| Uzbekistan | lower-middle income | Europe and Central Asia | 2,74 | 2,46 | 2,46 | 2,44 | 2,38 |
| Iran | lower-middle income | Middle East and North Africa | 2,07 | 1,83 | 1,84 | 2,04 | 2,14 |
| Georgia | upper-middle income | Europe and Central Asia | 1,61 | 1,66 | 1,91 | 2,05 | 2,05 |
| Azerbaijan | upper-middle income | Europe and Central Asia | 2,03 | 1,82 | 1,95 | 2,11 | 2,04 |
| Turkey | upper-middle income | Europe and Central Asia | 2,5 | 2,27 | 2,15 | 2,1 | 2,04 |
| Russia | upper-middle income | Europe and Central Asia | 1,24 | 1,36 | 1,58 | 1,78 | 1,83 |
| Armenia | upper-middle income | Europe and Central Asia | 1,65 | 1,68 | 1,72 | 1,74 | 1,76 |
| Belarus | upper-middle income | Europe and Central Asia | 1,24 | 1,33 | 1,56 | 1,69 | 1,73 |
| Ukraine | lower-middle income | Europe and Central Asia | 1,15 | 1,25 | 1,46 | 1,48 | 1,43 |
| Moldova | upper-middle income | Europe and Central Asia | 1,44 | 1,22 | 1,28 | 1,26 | 1,27 |

TABLE 4

Net migration rates in CIS countries, as of July 1, 2000-2020 (per 1000)¹⁶

| | 2000 | 2005 | 2010 | 2015 | 2020 |
|------------|--------|--------|--------|-------|-------|
| Armenia | -14.24 | -10.61 | -12.52 | -2.11 | -1.70 |
| Belarus | 1.13 | -0.13 | 1.35 | 1.53 | 0.92 |
| Kazakhstan | -16.40 | 0.59 | -045 | 1.89 | -0.99 |
| Kyrgyzstan | -1.15 | -6.92 | -2.92 | -3.28 | -0.64 |
| Moldova | -7.74 | -0.58 | -2.32 | -0.34 | -0.34 |
| Russia | 3.22 | 2.45 | 3.24 | 2.50 | 1.25 |
| Tajikistan | -7.92 | -4.46 | -4.07 | -3.43 | -2.22 |
| Uzbekistan | -2.04 | -1.89 | -1.02 | -0.45 | -0.28 |
| Ukraine | -1.85 | -0.69 | 1.16 | 0.58 | 0.23 |
| Azerbaijan | -2.81 | 0.88 | 1.22 | 0.18 | 0.12 |

 $^{^{15} \ \} The \ table \ was \ made \ according \ to \ the \ following \ source: \ https://knoema.com/atlas/topics/Demographics/Fertility/Fertilityrate$

The table was made according to the following source: https://knoema-com/atlas/topics/Demographics/Population/Netmigrationrate

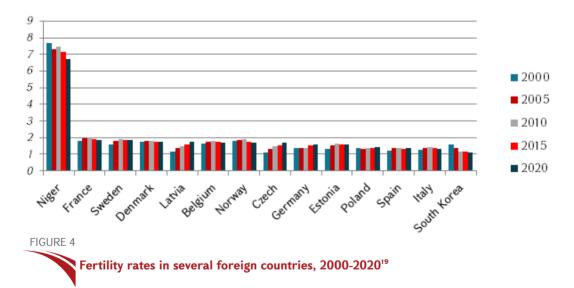
Belarus, Russia, Ukraine and Azerbaijan have a positive migration balance from the CIS member states, while negative balances have been registered in other countries. According to the 2020 data, Russia leads with a positive migration balance, while Tajikistan and Armenia record a negative balance.

The aging of the population is also impacted by the median age. Between 1950 and 2020, the median age in the world has increased by about 7.3 years. Ukraine, Belarus and Russia have the highest median age among the CIS member states. recorded at 41.2, 40.3 and 39.6 years respectively; and the lowest is Tajikistan at 22.4 years, which decreased between 1970 and 2000, but in the following years gained up to the 1950 levels: So we can conclude that Tajikistan has the youngest population among all the CIS member states. In 2020, the median age in Armenia was recorded at 35.4 years, which is equal to the median age of countries with above middle-income groups. Japan is in the first place in the world with a median age of 48.4 years, and the Republic of Niger is in the last place at 15.2 years.17

Fertility rates in several foreign countries.

As for the fertility rates in high-income European and Central Asian countries, data shows that in the last 20 years, there is a decline in the reproduction rate. In 2020, of the countries observed, France has a relatively high fertility rate at 1.84 of the EU countries, and Italy is the lowest at 1.25. The highest fertility rate in the world was recorded in the Republic of Niger at 6.74, and the lowest is in South Korea at 1.09 (Figure 1).

According to UN forecasts, by 2100 the global fertility rate per woman will fall to 1,9 (currently at 2,5). 18 The extended family with many children, that we often associate with the past, was only a reality for a glimpse in time. Only a few generations during the population boom lived in families with many children - before and after two children are the norm. The future will resemble our past, except that children are not dying, but are never born in the first place. Research has shown that the increased level of education and its spread, the changing role of women in the economy and society, the decline of marriages and fertility at a later age, are all having an impact on the world entering a period of demographic crisis; where there is



World Data Atlas, Median age of the total population,

https://knoema.com/atlas/topics/Demographics/Age/Median age of population Anthony Cilluffo, Neil G. Ruiz, World's population is projected to nearly stop growing by the end of the century, https://www.

pewresearch.org/fact-tank/2019/06/17/worlds-population-is-projected-to-nearly-stop-growing-by-the-end-of-the-century/

19 The table was made according to the following source: https://knoema.com/atlas/topics/Demographics/Fertility/Fertility-rate

a sharp decline in the birth rattle²⁰ decline in the birth rate not only has a negative financial impact but also affects the social assistance system as well as educational and migration policies.

One of the reasons for the decline in the birth rates is the change in women's behavior.

The 21st modern woman's priority has become her work and career.

Thus, we can conclude that certain changes can play a "fatal" role in the country's demographic future; such as changes in human behavior, value system, culture, faith, as well as newly acquired

government policies.

In addition, one must consider the time factor, which "does not like to wait", if policymakers do not take effective measures to improve demographic policies promptly or worse delay them, then countries can eventually find themselves in a seemingly demographic "labyrinth".

In other words, the factors group influencing the change in demography is the "brush" that constantly transforms the world, forever treating it as an "unfinished canvas", giving birth to many challenges for countries. All this leads to remarkable changes and new realities on a global level.

REFERENCES

- Anthony Cilluffo, Neil G. Ruiz, World's population is projected to nearly stop growing by the end of the century, https://www.pewresearch.org/fact-tank/2019/06/17/ worlds-population-is-projected-to-nearly-stopgrowing-by-the-end-of-the-century/
- 2. Andrew Mullen, Three-child policy: how many children can you have in China?, Published: 5 Jun, 2021,
 - https://www.scmp.com/economy/china-economy/article/3136092/chinas-three-child-policy-whywas-it-introduced-and-what-does
- Basten S., Lutz W., Scherbov S., Very long range global population scenarios to 2300, https://www.demographic-research.org/volumes/ vol28/39/
- 4. Harasty, C., Ostermeier, M. 2020. POPULATION AGEING: Alternative measures of dependency and implications for the future of work: , ILO Working Paper 5 (Geneva, ILO),
 - https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_747257.pdf
- 5. Martin King Whyte, The End of One-Child Policy and China's Demographic Challenge,

- https://www.chinausfocus.com/society-culture/the-end-of-one-child-policy-and-chinas-demographic-challenges
- 6. Max Roser, Future Population Growth, 2019, https://ourworldindata.org/future-population-growth#the-wc-iiasa-projectionshttps://ourworldindata.org/future-population-growth#citation
- Population Database, UN, 1950-2020, https://population.un.org/wpp/Download/Standard/ Population/
- 8. Three-child policy: China lifts the cap on births in major policy shift by David Stanway and Tony Munroe,
 - https://www.reuters.com/world/china/china-says-each-couple-can-have-three-children-change-policy-2021-05-31/
- 9. UN, Department of Economic and Social Affairs,
 - https://www.un.org/development/desa/en/news/population/world-population-prospects-2019.html
- World Population Prospects 2019 Highlights, UN-Population Division, https://population.un.org/wpp/Publications/Files/ WPP2019_Highlights.pdf
- 11. https://knoema.com/atlas/topics/Demographics

²⁰ Max Roser, Future Population Growth, 2019, https://ourworldindata.org/future-population-growth#the-wc-iiasa-projection-shttps://ourworldindata.org/future-population-growth#citation

Բիզնես վարչարարության ամբիոնի դոցենտ, տնտեսագիտության թեկնածու, <ՊՏ<

ԱՆՎՏԱՆԳՈՒԹՅՈՒՆ ԵՎ ՄԱՐՏԱՀՐԱՎԵՐՆԵՐ

ժՈՂՈՎՐԴԱԳՐԱԿԱՆ «ԼԱԲԻՐԻՆԹՈ՞Ս», ԹԵ՛ ...

Վերջին տասնամյակների ընթացքում բնակչության ծերացումը, ծնելիության անկումը, միջ-ազգային միգրացիան, իսկ վերջին երկու տարիներին՝ նաև COVID-19 համավարակը տեղեկա-տվական դաշտի քննարկումների առանցքում են։

Տարբեր տեսանկյուններից դիտարկելով ժողովրդագրական գործընթացի փոփոխությունները՝ ակնհայտ է դառնում, որ վերջիններս իրենց հետ բերում են բազմաթիվ հիմնախնդիրներ գրեթե բոլոր երկրների համար։ Ի տարբերություն այլ հիմնախնդիրների, որոնց լուծումները գերազանցապես պայմանավորված են երկրների ֆինանսական ռեսուրսներով ապահովածության աստիճանով, ժողովրդագրական հիմնախնդիրների յուրահատկությունն այն է, որ դրանց վրա առավել նշանակալի ազդեցություն ունեն կրոնական, մշակութային առանձնահատկությունները, ժամանակի ընթացքում բնակչության մտածելակերպի, վարքագծի փոփոխությունները։ Հետևաբար՝ ժողովրդագրական քաղաքականության մշակման ժամանակ պետք է հաշվի առնել այն իրողությունը, որ այս համատեքստում յուրաքանչյուր միջոցառում ժամանակի ընթացքում կորցնում է իր գրավչությունն ու դադարում ծառայել հիմնական նպատակին։ Այսինքն՝ ոլորտի բարելավմանն ուղղված բոլոր քայլերը կարիք ունեն մշտադիտարկման և պարբերաբար վերանայման։

Հիմնաբառեր. ժողովրդագրական իրավիճակ, բնակչության ծերացում, ծնելիություն, պտղաբերության գործակից, միգրացիա

Лусине КАРАПЕТЯН

Доцент кафедры бизнес администрирования, кандидат экономических наук, АГЭУ

БЕЗОПАСНОСТЬ И ВЫЗОВЫ

ДЕМОГРАФИЧЕСКИЙ "ЛАБИРИНТ" ИЛИ ...?

На глобальном уровне старение населения, снижение рождаемости, международная миграция в течение последнего десятилетия, а также пандемия COVID-19 за последние два года были в центре внимания дискуссий информационного поля.

Разностороннее рассмотрение изменений в демографических процессах показывает, что они создали множество проблем практически для всех стран.

В отличие от других проблем, в основе решения которых лежит обеспеченность стран финансовыми ресурсами, особенность демографических проблем состоит в том, что на них наиболее существенно влияют религиозные и культурные особенности, изменения в мышлении и поведении населения с течением времени.

Поэтому при разработке демографической политики необходимо учитывать тот факт, что каждое событие со временем теряет свою привлекательность и перестает служить своей основной цели.

Таким образом, меры по улучшению этой области нужно регулярно контролировать и пересматривать.

Ключевые слова: демографическая ситуация, старение населения, рождаемость, суммарный коэффициент рождаемости (коэффициент фертильности), миграция