DEPOPULATION IN MOLDOVA: IS IT POSSIBLE TO STOP OR DIMINISH IT?

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Introduction

The massive depopulation of Moldova is among the worst of all the negative changes that have occurred during the independence period. For two decades, there has been a decline in population, which is the cumulative result of negative natural growth and negative migration. The dynamics of demographic processes are not optimistic, and the main demographic challenges (rapid aging and the growing demographic burden) has a significant impact on socio-economic development.

This work represents an analysis of the change in the population of Moldova and its components (fertility, mortality, and migration), while also considering possible trajectories based on an analytical demographic forecast. The work refers to Moldova in the 1998-2020 period, without the territory of Transnistria.

Data and methods

- NBS data related to population with usual residence and international migration;
- Mortality data by age and sex (Penina, Jdanov and Grigoriev (2015), NBS);
- Mortality data by age and sex in Estonia (HMD);
- Migration data of host countries, OECD, Eurostat, World Bank and others sources.

Results

In the period 1998-2020, the population of Moldova decreased from 3655.6 thousand to 2640,4 thousand (by 27.7%). About one million citizens have left Moldova permanently or for a long-term period, so negative net migration accounted for over 90% of the total population decline during this period.

Population change in Moldova and its components

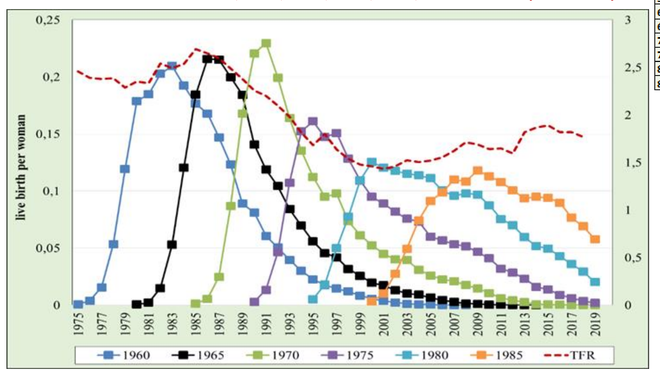
Years	Total population (thousand)	Population changes, thousand			Population changes, %		
		Total decline	Natural decline	Migration decline	Total decline	Natural decline	Migration decline
1991	4364,1	-					
1997	4317,5	-46,6	89,6	-136,2	-	-	-
1998	3655,6	-	-	-	-	-	-
2004	3383,0 (Census)	-272,6	-25,5	-247,1	100	9,4	90,6
2014	2869,2 (Census)	-513,8	-26,3	-487,5	100	5,1	94,9
2020	2643,9	-225,3	-15,1	-210,2	100	6,7	93,3
1998-2020	**2643,9 – 3655,6**	**-1011,7**	**-66,9**	**-944,8**	**100**	**6,6**	**93,4**

Fertility

The annual number of births declines, due to the drop in population number and the migration of population in reproductive ages. TFR in the last years is 1,8-1,7 children. Women`s small young generations born in the late 1990s - early 2000s are in the most active of reproductive ages (up to 35 years), which determines the decline in the number of births. The mean age of mother at first childbearing rose to 24,6 years (2019).

Cohort fertility rates are decreasing gradually but did not go lower than 1,75 live birth per woman considered as a threshold for “very low” fertility. In the 1960s CCFR birth cohort was 2,2 children per woman, for those born in 1970 it was 1,94. The younger cohort of women born in 1985 accumulate 1,6 live birth per woman.

CFR of women born in 1960, 1965, 1970, 1975, 1980, 1985 and TFR (1975-2019)



Mortality

Excess mortality accelerates the natural decline of the population. Life expectancy at birth increased from 67.8 years in 1998 to only 70.9 in 2019. There is a big difference in life expectancy between men and women: age 66.8 and 75.1.

Excess mortality estimation, using the model of Estonia (which in the early 1990s had a similar mortality level to Moldova, and by 2019 had made significant progress in its decline) shows that excess mortality for men is observed in ages 40-65 and for women at age of 60 and over. If life expectancy in Moldova was the same as in Estonia, then the natural increase would be positive throughout the entire period.

Absolute number of excessive deaths by age-groups, years and sexes, Estonian model

MALES

Age	Years									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
0	206	229	137	146	175	168	148	136	155	109
1-4	11	35	24	34	21	30	38	13	7	15
5-9	10	8	17	17	4	9	19	11	19	10
10-14	23	0	31	13	17	16	10	19	17	18
15-19	25	44	62	24	24	7	27	15	25	25
20-24	71	23	3	-4	-35	72	25	49	53	52
25-29	65	-30	-65	81	31	72	90	79	75	33
30-34	221	71	68	78	98	68	91	115	167	136
35-39	408	262	243	275	286	230	239	211	251	256
40-44	579	398	331	305	421	431	407	319	382	426
45-49	913	581	642	592	538	638	491	448	472	493
50-54	1197	876	899	966	938	908	792	616	618	607
55-59	1259	864	1053	1044	1026	1145	1061	972	774	978
60-64	849	904	916	1013	1167	1329	1164	1031	1256	1112
65-69	1038	692	634	541	733	920	985	982	1191	1056
70-74	1045	974	1019	862	897	781	779	542	516	562
75-79	934	948	932	983	930	922	838	848	912	865
80-84	612	631	756	650	661	755	628	705	794	770
85+	220	286	306	388	256	489	564	510	511	570

FEMALES

Age	Years									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
0	138	110	118	139	103	98	115	113	105	119
1-4	7	33	27	13	17	10	30	16	17	12
5-9	8	13	12	5	8	5	15	14	14	0
10-14	16	-3	16	1	14	5	13	2	7	17
15-19	28	-7	16	11	-3	-5	-16	6	7	7
20-24	26	16	5	21	12	25	-21	-11	18	18
25-29	35	20	12	15	10	25	7	32	13	16
30-34	85	50	43	44	13	54	36	40	32	34
35-39	122	78	137	67	100	123	58	91	52	94
40-44	175	114	129	122	203	128	145	156	145	121
45-49	421	161	194	254	233	241	196	190	190	133
50-54	571	435	452	336	373	428	302	233	226	245
55-59	834	629	616	539	645	687	613	514	527	487
60-64	840	873	881	900	891	876	863	629	714	773
65-69	1159	854	757	722	736	981	1138	962	1057	1180
70-74	1651	1410	1549	1338	1403	1203	1115	917	781	780
75-79	1780	1690	1705	1619	1867	1707	1742	1638	1599	1408
80-84	1634	1629	1573	1652	1624	1811	1525	1592	1626	1639
85+	880	987	1085	996	1210	1510	1372	1684	1620	1586

The Covid-19 pandemic has increased excess mortality and leads to a drop in life expectancy at birth: -0,9 years for men and -1,2 for women. The Covid-19 fatality rate is about 22.8 deaths per 1,000 cases of infection. 52.8% of all deaths of women and 56% of thousand among men fall under the age of 70. The number of deaths, in 2020, jumped significantly, leading to a natural negativ growth up to -3,8‰.

Migration

International migration has been the primary cause of population decline in Moldova. There is a high proportion of youth aged 15-34 involved in international migration. At the same time, in recent years, there has been return migration of the population aged 50 and over. High migration among young and working-age populations has a negative impact on population structure, accelerating demographic aging.

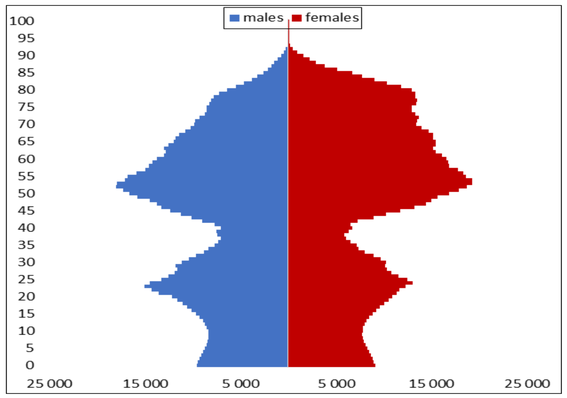
The main factors of migration are economic disparities between Moldova and developed countries, low wages, reduced professional opportunities, and low social protection.

At the same time, migration was accelerated by the Association Agreement between Moldova and EU (2014) and the opportunity to regain Romanian citizenship. The last one favors the reuniting of migrant families for settlement, especially in Western Europe.

Future trends

According to the demographic projection developed by CDR for 2019-2040 for Moldova in the coming decades, the demographic decline would increase annually from 1.6% to 2.3%. The population will diminish by 1924.9 thousand or 28,2% by 2040 (medium scenario). The age-sex pyramid acquires an hourglass shape due to population migration at young ages. Its upper part indicates the deepening of the aging process. Only by a substantial reduction of migration, the demographic decline can be diminished.

Projected age-sex pyramid for Moldova in 2040



Conclusions

- Natural decrease and high-level of emigration lead to an accelerated pace of population decline.
- There is no visible opportunity to improve the situation. Despite the international organizations' calls to focus not on the quantity, but on the quality of the population, this task is difficult to achieve.
- Emigration, whose flows and directions are difficult to predict leads to loss of human capital and makes investments less efficient.
- The regional approach can be a solution in migration management and foster dialogue across countries on shared regional priorities.

Acknowledgements

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