



DEMOGRAPHIC BAROMETER IMPACT OF ECONOMIC CRISES ON DEMOGRAPHIC PROCESSES

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Summary: *The impact of economic crises taken place in Moldova in 1990-2012 on the main demographic processes (fertility, mortality and migration) are examined. In this context, it appears that economic hardship and uncertainty on the labor market lead to reduced intentions concerning childbearing, which was reflected in a significant decline in the total fertility rate and age-specific fertility rates at younger ages.*

Mortality for all ages and causes of death showed a general upward trend, standardized mortality rate increased by 44% in men and 30% women between 1990 and 2014. There is an enormous gap in life expectancy at birth between Moldova and EU countries. In Moldova, this indicator is 65.0 years for men and 73.4 years for women, which is less than in the EU countries, respectively, by 7.4 and 6.7 years.

Unstable socio-economic situation increases the number of people involved in the international migration that mainly involves younger people. In the recent years, emigration fluctuates annually within 45-50 thousand.

The most urgent policy directions are as follows: creating favorable conditions for the birth and education of children, reducing adult mortality and migration.

After proclaiming the Independence and a sharp transition to the market economy, Moldova was affected by several economic crises, such as the crisis in the 1990s with the hyperinflation of 1991-1992 followed by the 1993-1996 depression period and the 1998-1999 default. The economic growth registered in 2000-2005 contributed to the relative socio-economic stability, but the leading economic indicators remained at a very low level. The financial crisis in 2009 and 2014 again affected the living conditions of the population. In fact, Moldova after the 1990s has been in a constant stressful economic situation. These economic shocks have important consequences at both an individual and the society level as well as have an impact on the main demographic processes (fertility, mortality and migration).

Economic crises and fertility. The relationship between economic conditions and fertility is one of the classic questions in demography. Different scientific papers on the determinants of fertility show that economic hardship and uncertainty on the labor market motivate people to postpone childbearing or reconsider their plans on having children. The economic downturn that accompanied the fundamental transformations in Moldova has hit the family life of the population and its demographic potential, which

is one of the strongest factors that caused a sharp fertility decline in 1990-2002.

A considerable increase in the total fertility rate (TFR) in the 1980s as a result of the family policies implemented in the former USSR was followed by its significant decline from 1988. This sudden drop is determined both by the deteriorating socioeconomic situation as well as by a compensatory fertility decline as a consequence of the stimulating economic measures of the 1980s family policy, which caused in turn the destabilization of calendar fertility (births at younger age and reduction of the intervals between successive births).

In the years 2000-2005, when the national economy improved, a downward trend in TFR reversed, and a moderate growth was registered. Between the beginning of the economic improvements and an increase in TFR, there is a lag of about 1.5-2 years. Thus, after a continuous decline until 2002, the level of TFR stabilized followed by its slow growth until 2009, when this indicator reached 1.71¹. The economic crisis of the year 2009 and the overall instability in the country after that was accompanied by a new decline in TFR again, which nowadays, maintains at the level of 1.6 to 1.65 children per woman of childbearing age (Fig.1).

¹ RTF este calculat în baza datelor oficiale cu privire la populația stabilă a Republicii Moldova (RTF-BNS) și în raport cu estimările alternative ale populației prezente (RTF-CCD), Penina O., Grigoriev P., Jdanov D., 2015, "Producing reliable mortality estimates in the context of distorted population statistics: the case of Moldova", MPIDR Working Paper WP-2015-011, 2015.

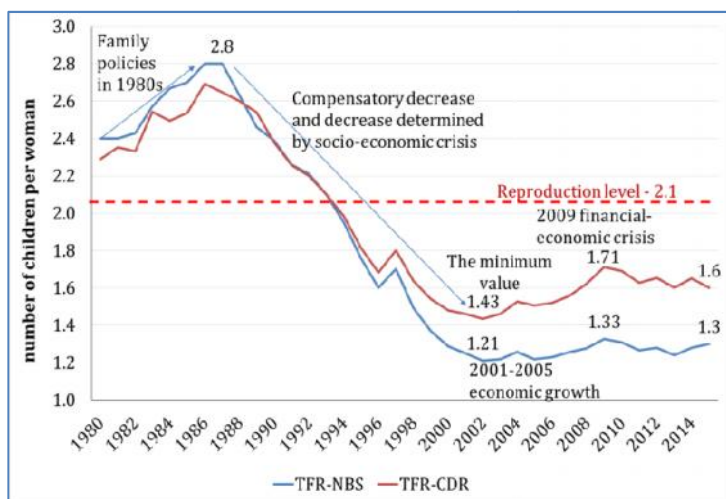


Fig.1. Total fertility rate based on official (in blue) and alternative population estimates (in red) and the periods of economic crises in Moldova, (children per one woman aged 15-49 years old)

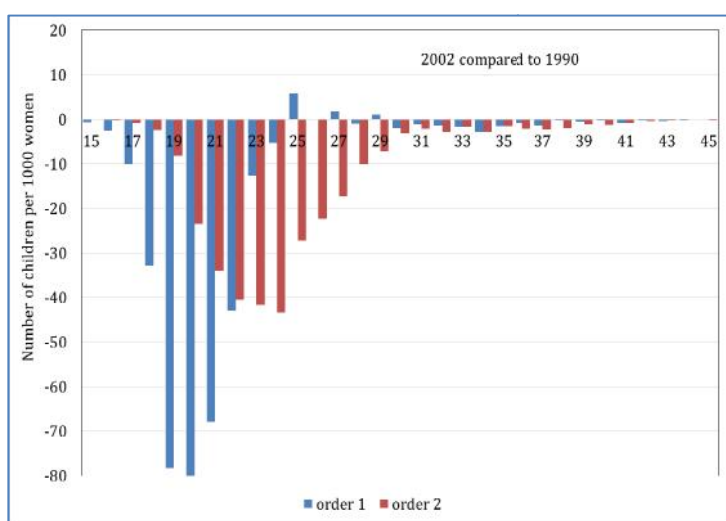


Fig. 2. Increase/decrease in age-specific fertility rates of first and second order, 2002 compared to 1990

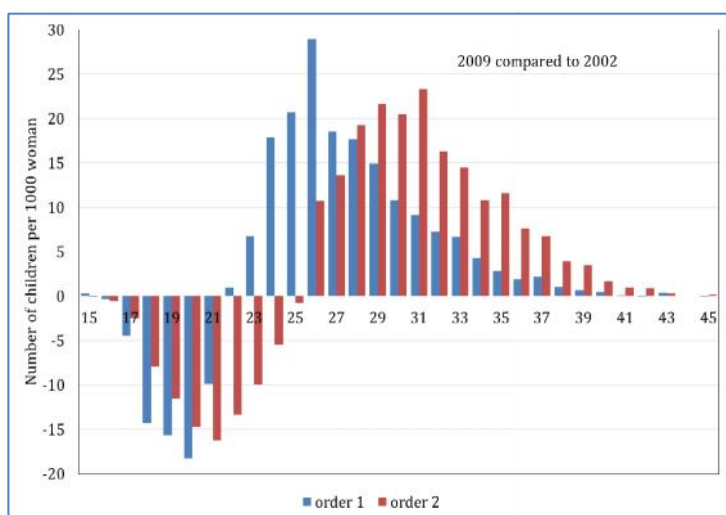


Fig. 3. Increase/decrease in age-specific fertility rates of first and second order, 2009 compared to 2002

Source: Fig. 1-3 calculations based on National Bureau of Statistics (NBS) data and data on alternative population estimates

The impact of the economic crisis is stronger on the reproductive behavior of young people, and this finding has solid evidence in research studies conducted in European countries².

The social and economic crisis of the 1990s affected the plans of the youth about family formation and childbirth, TFR decreased in 1990-2002 due to a significant reduction of age-specific fertility rates of first order (birth of the first child), especially at ages 15-19 and 20-24, with somewhat fluctuations at the age groups 25-27 years. There was also a decrease in age-specific fertility rates of second order (birth of the second child) (Fig. 2).

In the subsequent period, 2002-2009, there was a continuing trend in reducing age-specific fertility rates both of first and second order at younger ages. At the same time, at older ages, the corresponding fertility rates increased, especially at age 24-27 (first order) and 26-35 (second order) (Fig. 3).

Socioeconomic constraints served as the impulse for the second demographic transition that occurred in Moldova from the mid-1990s and manifested by restructuring the fertility model, continuing growth in the mother's age at first birth (from 21, 9 in 1995 to 24.4 years in 2014) and an increase in births outside marriage.

Economic crises and mortality. During 1990-2014, the overall mortality in Moldova had an ascending trend, standardized death rate increased by 44% in males and 30% in females (Table 1).

The biggest growth was registered in the years 1991-1995. Males at working age groups are the most vulnerable population category (standardized death rate increased by 30%). In the second half of the 1990s, mortality reduced at all ages as the result of the adoption of the population to the new social and economic circumstances, and this temporary improvement did not represent the beginning of mortality reversal. Indeed, after 1998, the ascending trend in mortality among the adults after 40 years old recommenced again. Totally, during the period of the economic crisis the overall mortality increased by 20% for both sexes. At the level of causes of death, the deterioration was characteristic for all the major groups of causes of death, especially for diseases of the circulatory system, external causes of death among males and infectious diseases (tuberculosis).

In 2000-2005, disregarding the general economic amelioration, the total mortality continued increasing both for males and females (respectively, by 19% and 13%). However, certain improvements were registered among children and young adults aged before 40 years old, especially due to a decline in mortality from external causes of death. At the same time, the health situation among mature adults (40-69 years old) and the elderly (70 years old and over) continued deteriorating.

² Goldstein J., Kreyenfeld M., Jasilioniene A., Örsal D-K. Fertility reactions to the 'Great Recession' in Europe: Recent evidence from order-specific data. 2013. <http://www.demographic-research.org/volumes/vol29/4/29-4.pdf>

Table 1. Age-specific death rates by age and sex, 1990-2014, per 1000

Year		Less one year	1-14 years	15-39 years	40-59 years	60 years and over	All ages
1990	Males	21.4	0.9	2.8	12.7	56.7	10.3
1995		24.5	0.8	3.5	16.0	68.1	13.2
1999		19.9	0.7	3.0	13.6	66.1	12.8
2005		13.3	0.6	2.8	17.5	75.5	15.2
2010		14.1	0.4	3.1	19.6	75.6	16.4
2014		12.3	0.4	2.3	16.4	66.6	14.8
1990	Females	16.3	0.6	1.0	7.1	45.5	9.2
1995		17.1	0.6	1.1	8.1	56.5	11.7
1999		16.4	0.6	1.1	6.5	53.3	11.2
2005		12.6	0.4	1.0	7.2	59.2	12.8
2010		9.7	0.3	1.0	7.7	57.9	13.3
2014		8.4	0.3	0.8	6.4	50.5	12.4

Source: calculations based on the Human Cause-of-Death Database, <http://www.causesofdeath.org>

The period 2005-2010 was marked by slow mortality growth or stagnation. After 2010, the situation improved evident in both sexes and for all ages, particularly among mature adults and the elderly. However, this mortality decline is very short to draw any conclusions about its sustainability.

Life expectancy at birth is another indicator showing population health situation in the country. So far, Moldova has not been able to obtain a steady progress in

life expectancy unlike Western countries, for example France, where a continuous increase of this indicator has been registered from the 70s of last century. At present, there is a significant gap in terms of life expectancy at birth between Moldova and the EU countries. In Moldova, life expectancy at birth is 65.0 years for men and 73.4 years for women (in 2014³), which is less than the corresponding values in EU by 7.4 and 6.7 years, respectively (Fig.4)⁴.

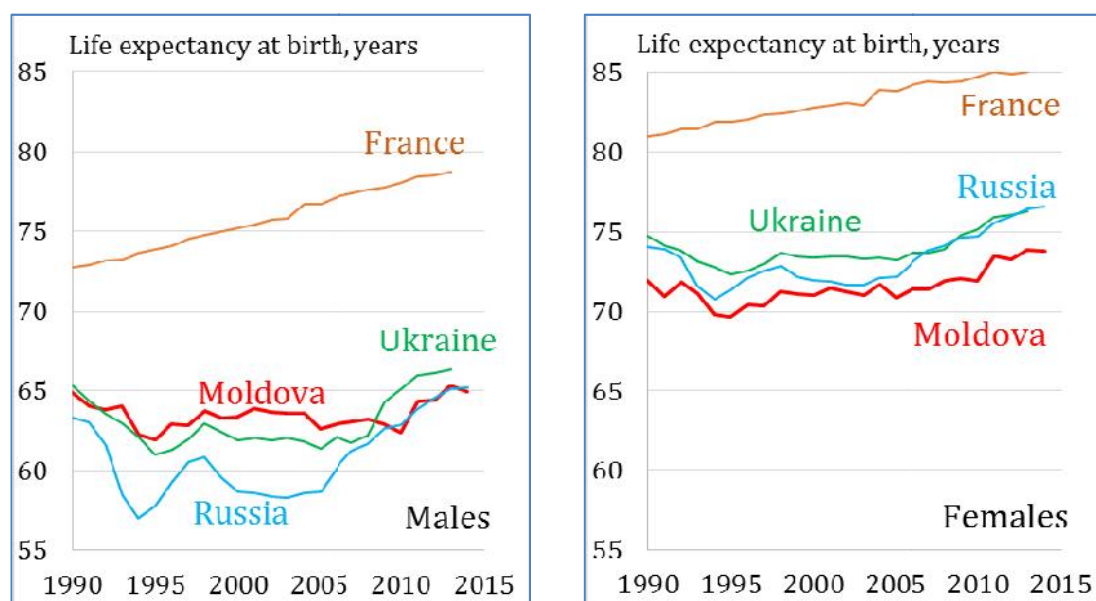


Fig. 4. Life expectancy at birth in Moldova, Ukraine, Russia and France (years)

Source: for Moldova – the Human Cause-of-Death Database, <http://www.causesofdeath.org>; for other countries – the Human Mortality Database (<http://www.mortality.org/>)

Economic crisis and migration. The international migration (emigration and immigration) is determined by a combination of attraction and rejection factors. In Moldova, emigration has been driven mainly by economic factors such as the lack of jobs, low wages, high cost of goods and services, low living standards etc. In response to the economic crisis of the 1990s, the

population have gone abroad in search of a job. Flows of Moldovan emigrants continued growing despite the modest economic improvements in the country in 2000-2005. Compared to 1999, the number of emigrants increased by 75% in 2000 and by 128% in 2001, which means on average 30 thousand persons annually for the period 2000-2006.

³ Calculated based on alternative de facto population estimates (see Footnote 1)

⁴ Health for All Database (<http://data.euro.who.int/>).

Emigration for employment had been dominant until 2007 followed by another wave of migrants who went abroad to unite with their family members. The flows of migrants in this period vary between 45 and 55 thousand persons per year (Fig. 5). Due to the reunification of families, emigration of young people in Italy has greatly increased. Between 2007 and 2010,

the number of migrants living in Italy aged up to 17 years old increased by 8 times, while the age group 18-24 years old by 5 times. Unstable socio-economic situation in the country contribute to increasing the number of persons involved in the international migration, which include more and more people at younger age groups (Fig.6).

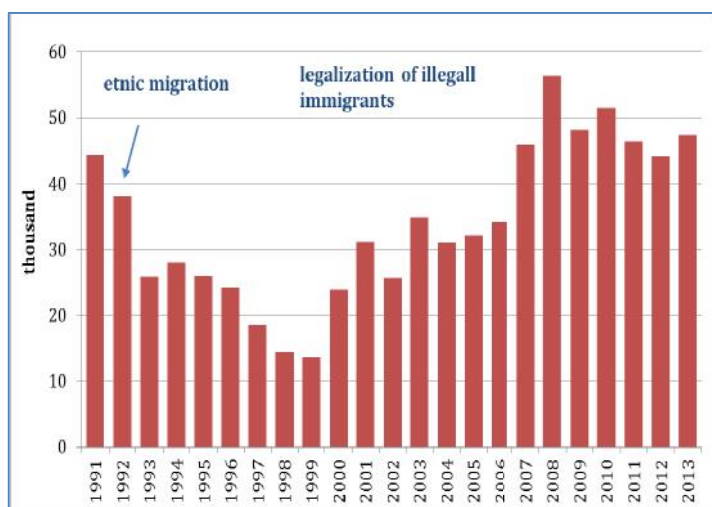


Fig. 5. Annual flows of Moldovan emigrants registered in the recipient countries, 1991-2014, (thousand persons)

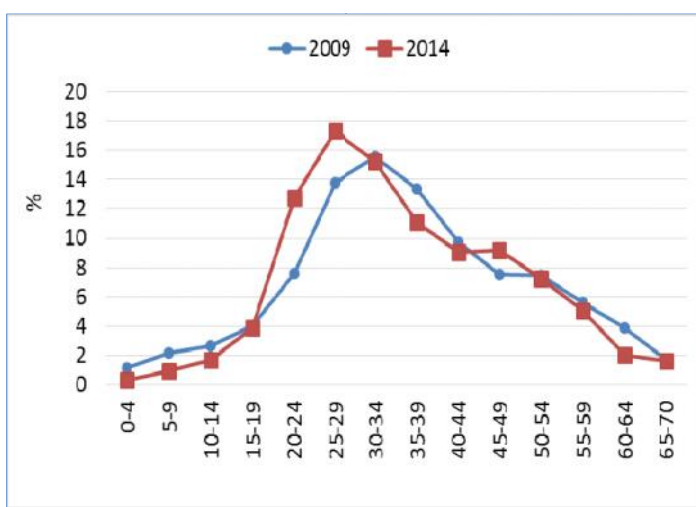


Fig. 6. Distribution of Moldovan emigrants by age groups in 2009 and 2014, (%)

Sources: For Fig.5: National statistical offices from Russia, Italy, Spain, Ukraine, Canada, the US department of homeland security, UNA, OECD, Toltz M. Statistical analysis of aliyah and emigration of the Jews from Russia. The world in the mirror of international migration: Russia and contemporary world. Moscow, 2002. For Fig.6: Border crossing migration data (SIIMA System): based on Form 3.2 "Moldovan citizens left abroad" (duration more than 12 months).

Note: Flows were calculated for Israel, Russia, Germany, Ukraine, the USA, Canada, Italy, Spain, Portugal, Czech Republic and cover (except Russia) residence permits issued to Moldovan citizens living in these countries more than 12 months. The data do not include migration of short duration (less than 12 months) and circular migration.

It is worth mentioning that there is no evident correlation between periods of economic crisis and the size of emigration flows in Moldova. The unpromising

Conclusions and recommendations

The relationship between socioeconomic status and population dynamics is reciprocal. Socioeconomic situation has a direct effect on the dynamics of demographic processes. At the same time, labour force (population) is a key factor in the production process and therefore determines the economic development. The poor social and economic situation led to the deterioration of the major demographic indicators in the past, and we can expect that the impact of the demographic factor on the economic situation will have in the medium and long-term perspective a more complex relationship.

Positive changes in the social and economic situation is an important prerequisite for improving the demographic

socio-economic situation since the Independence has led a lot of Moldovan citizens to emigrate abroad either to search for a temporary job or to settle down there.

situation, and the following policy directions are the most important for Moldova:

- to create favourable conditions for birth and children education by facilitating the accessibility of housing, reducing costs for raising children.
- to reduce mortality by promoting policies aimed at increasing the accessibility of health services, especially for socially vulnerable groups, prevention and promotion of healthy lifestyles.
- to reduce population migration, especially labour and circular migration, to prevent transformation of these types of migration to the definite one by developing labour market, wage growth and improving living standards.



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