Demographic Change in South-Eastern Europe: trends, determinants, and challenges

Tomáš Sobotka

Vienna Institute of Demography (Austrian Academy of Sciences), Wittgenstein Centre for Demography and Global Human Capital

Population Dynamics, Human Capital and Sustainable Development in South-East Europe; Regional Conference, Sarajevo 21 October 2019



AUSTRIAN ACADEMY OF SCIENCES



Background: the sweeping societal changes in the region after 1989

The collapse of state-socialism in Central & Eastern Europe after 1989

- The collapse of the "old" economic and social security systems
- Ex-USSR and ex-Yugoslavia: regional territorial conflicts
- Long-lasting economic uncertainty, poverty, inequality
- Informal economy, shrinking tax base and government control
- Large-scale outmigration from some countries; brain drain
- Huge differences between countries and regions, also in the reforms and responses to economic changes
- Gradual stabilisation and economic recovery after 2000

Background: the sweeping societal changes in the region after 1989

The collapse of state-socialism & the Soviet Union in 1989-91

- The collapse of the "old" economic and social security systems
- Regional conflicts in some countries, including Russia, Azerbaijan, Georgia, Armenia, and Ukraine
- Long-lasting economic uncertainty, poverty, inequality
- Informal economy, shrinking tax base and government control
- Huge differences between countries and regions, also in the reforms and responses to economic changes
- Gradual stabilisation and economic recovery after 2000
- \rightarrow Impacted the lives of all people
- \rightarrow These shifts precipitated massive population changes
- → A combination of population trends driven by crisis responses and "modernization" (longer education, changing values, changing gender roles)

South-eastern Europe countries diversity

Human Development Index (2017)

Selected countries in South-Eastern Europe (green), Central & Eastern Europe (brown) and in other European regions (blue)



Source: United Nations Development Programme 2019; http://hdr.undp.org/en/content/human-development-index-hdi South-eastern Europe countries diversity GDP per capita (2016) in constant 2010 \$ (thousand) Selected countries in South-Eastern Europe (green), Central & Eastern Europe (brown) and in other European regions (blue)



Source: World Bank; World Development Indicators database 2018. Accessed 20 October 2019 at https://data.worldbank.org/indicator/NY.GDP.PCAP.KD

Spectacular population declines

Rapidly falling population in many countries in the region

Population size (million) in selected countries, 1989 and 2019



Fastest population declines globally

CEE & South-eastern Europe with world-fastest pop. declines

15

Latvia -28 Bosnia and Herzegovina -27 Lithuania -25 Georgia -22 Bulgaria -21 Romania -17 Armenia -16 Estonia -16 Ukraine -14 Croatia -14 Puerto Rico -13 Albania -12 Serbia -7 Moldova -7 Eastern Europe -5 EUROPE Δ -35 -25 -15 -5 5

Countries with fastest population decline globally (%), 1989-2019

Note: Only countries with population > 1 million in 2019 ranked

Sources: UN World Population Prospects 2019: Estimated population size 1950-2020. Data for Georgia: NSO Georgia (2018) and own estimates for 1989.

Europe: East-West division in relative population change, 1990-2017, in %



Source: European Demographic Data Sheet 2018; map created with mapchart.net

Agenda

- Uncertain and problematic data
- Population dynamics: Falling fertility, changing family
- Population dynamics: Migration
- Future outlook and challenges: continuing outmigration and depopulation?

Regional focus: countries of former Yugoslavia (Bosnia and Herzegovina, Croatia, North Macedonia, Montenegro, Serbia and Slovenia) plus Albania, Bulgaria, Romania, Moldova

Thank you to Krystof Zeman (Vienna Institute of Demography) for providing selected fertility data for the region

Uncertain and problematic data

Why population data problematic in the region

Uncertainty about population data and indicators due to

- Under-reported outmigration (all countries in the region)
- Discontinuities in data collection (conflicts, breakdown on data collection systems; especially in the 1990s)
- Incomplete or deficient data collection; disputed census data
- Lacking reliable census and survey data (e.g., Bosnia and Herzegovina, Moldova)

Data most problematic in Moldova and Bosnia and Hercegovina (possibly also Albania)

- Indicators of population size likely to be over-estimated, basic indicators of demographic change (fertility, mortality, migration (underestimated)
- Imprecise data and indicators, also affects rankings and estimated time trends

Data inconsistencies: Two tales of outmigration from Hungary

Figure 11: Emigration from Hungary and immigration of Hungarian citizens to other European countries (flow), 1995–2013(2014)

Thousand people Hungarian citizens immigrating to European countries (on the basis of mirror statistics)^{a)} Hungarian citizens emigrating from Hungary (national statistics)^{b)}

Source: Figure 11 in Iren Gödri, "International migration," Chapter 11 in Monostori, Judit - Őri, Péter - Spéder, Zsolt (eds.): *Demographic Portrait of Hungary 2015*

Data inconsistencies: The shrinking population of Moldova



Figure 11. Population estimates for Moldova: official de jure (1980-2015) and alternative de facto (1980-2014), all ages, both sexes

Source: Figure 11 in O. Penina, D. Jdanov & P. Grigoriev. "Producing reliable mortality estimates in the context of distorted population statistics: the case of Moldova." MPIDR WORKING PAPER WP 2015-011

Population dynamics in the region: Falling fertility, changing family

Heterogeneity in long-term fertility declines: late decline in family size in some regions

Completed cohort fertility rate (children per woman), women born 1920-1972



Sources: Population census data (1980-2013); CFE database (2019), courtesy of Krystof Zeman and Ivan Cipin

Fertility rates falling to very low levels across the region

Period Total Fertility Rate (TFR, children per woman), 1980-2018



Sources: Eurostat (2018), Council of Europe (2006), European Demographic Data Sheet (2018), national statistical offices

Fertility rates falling to very low levels across the region

Period Total Fertility Rate (TFR, children per woman), 1980-2018



Sources: Eurostat (2018), Council of Europe (2006), European Demographic Data Sheet (2018), national statistical offices



Fertility rates below European average

Period Total Fertility Rate (TFR, children per woman), 1980-2018



Uncertainty about period fertility levels: Extreme low fertility in South-Eastern Europe?

Officially reported low and extreme low period Total Fertility Rates in some countries partly biased due to inflated population estimates

Period Total Fertility Rates, 2017 (officially reported values)



Period Total Fertility Rate in Albania (official and alternative estimates)



Fig. 1 Total fertility rate according to different sources, Albania 1990–2008. *Sources* INSTAT, RHS 2002 (Morris et al., 2005), DHS 2008/9 (INSTAT et al., 2010), author's estimation from the 2001 Census. *Note* Own children estimates refer to periods between 1 April and 31 March

Source: Figure 1 in Lerch, M. 2013. Fertility decline during Albania's societal crisis. *European Journal of Population* 29: 195-220.

Prenatal sex selection: distorted sex ratios at birth

- Several countries recording mildly distorted SRBs
- Declining after 2010

UNDP estimates (WPP 2019); normal levels at 1.04-1.06:

- Albania 112 in 2000-2010 (1.09 now)
- Montenegro 110 in 1990-2010
- North Macedonia 108 in 2010-15
- B & H: 107 most years

(China 116 around 2000)

Family size: Rapid rise in one-child families in parts of the region

Share with one child, women born 1955-1971; selected countries in South-eastern Europe and Russia



Source: Census 2011, data from the Cohort Fertility and Education (CFE) database (2019)

Very low fertility among highly educated women

Completed fertility by level of education, women born 1930-1970



Source: Census 2011, data from the Cohort Fertility and Education (CFE) database (2019); some data provided by Krystof Zeman and Ivan Cipin

Very low fertility among highly educated women

Completed fertility by level of education, women born 1930-1970 (selected European countries)



Source: CFE database (2019). Based on T Sobotka, E Beaujouan & Z Brzozowska: "Reversals, diminishing differentials, or stable patterns? Long-term trends in educational gradients in fertility across the developed countries", presented at the IUSSP conference, Cape Town, October 2017

The continuing postponement of first births, 1990s-2010s



Mean age at first birth, selected European countries, 1970-2017

Source: Human Fertility Database (HFD), 2019

Early marriages replaced by living with parents

FIGURE 10.3: The share of young people aged 20 to 29 who lived with their parents in 2016 (in%)

The share of young people aged 20-29 living with parents

Source: Lavrič, Miran & Jusic, Mirna & Tomanovic, Smiljka. (2019). YOUTH STUDY SOUTHEAST EUROPE 2018/2019.



Early marriages replaced by living with parents



Very high share of young people aged 20-29 living with parents in South-eastern Europe

Declining fertility, changing family: Main determinants and explanations

They are complementary – not mutually exclusive; different weight/mix in different countries

- The Economic disruption, conflict, uncertainty: esp. the 1990s
- \rightarrow economic ups and downs have a stronger effect than in most other European regions
- Rapid expansion of higher education: delaying life course transitions, changing parenting ambitions and styles
- The "Second Demographic Transition": changing values, lifestyles and aspirations of younger generations
- The "Pattern of Disadvantage"
- The "Contraceptive revolution": a shift from abortion to contraception, falling unplanned pregnancies and births
- New family policies since the 2000s, economic upturns

Fewer people in Western European countries see religion as a key component of national identity

% who say it is _____ to be a Christian to truly share their national identity (e.g. to be "truly Armenian")

NOT VERY/NOT AT ALL IMPORTANT				VERY/SOMEWHAT IMPORTANT				
Central/Eastern	16%	Armenia	82%					
Europe	16	Georgia	81					
Western Europe	21	Serbia	78					
western Europe	23	Greece	76					
	25	Romania	74					
	33	Bulgaria	66					
	33	Poland	64					
	34	Moldova	63					
	36	Portugal	62					
	39	Bosnia	59					
	42	Croatia	58					
	40	Russia	57					
	42	Lithuania	56					
	45	Italy	53					
	45	Ukraine	51					
	49	Ireland	48					
	54	Belarus	45					
	57	Hungary	43					
	58 3	Switzerland	42					
	61	Austria	39					
	59	Spain	38					
	64	Slovakia	35					
	64	Germany	34					
	65	UK	34					
	67	Finland	32					
	65	France	32					
	77 N	Vetherland	s 22					
	78	Czech Rep.	21					
	78	Norway	21					
	80	Belgium	19					
	80	Denmark	19					
	82	Estonia	15					
	84	Sweden	15					
	84	Latvia	11					

Note: In nearly all Central and Eastern European countries, the dominant Christian denomination was included in the question wording (Catholic, Orthodox or Lutheran). For example, in Russia, respondents were asked how important it is to be Orthodox to be "truly Russian." In Bosnia, respondents were asked about their own religious group, whether Muslim or Orthodox. Don't know/refused responses not shown.

Source: Surveys conducted 2015-2017 in 34 countries. See Methodology for details. "Eastern and Western Europeans Differ on Importance of Religion, Views of Minorities, and Key Social Issues"

PEW RESEARCH CENTER

The cultural divides across the region: Importance of religion



FOR RELEASE OCT. 29, 2018

Eastern and Western Europeans Differ on Importance of Religion, Views of Minorities, and Key Social Issues

People in Central and Eastern Europe are less accepting of Muslims and Jews, same-sex marriage, and legal abortion

The cultural & values divides across the region: attitudes to same-sex marriage (2015-17)

Young adults in Central and Eastern Europe largely oppose gay marriage

% of those ages 18 to 34 who say they oppose/strongly oppose allowing gays and lesbians to marry legally



Source: Surveys conducted 2015-2017 in 34 countries. See Methodology for details. "Eastern and Western Europeans Differ on Importance of Religion, Views of Minorities, and Key Social Issues"

PEW RESEARCH CENTER

Population dynamics in the region: Migration

The East – West European migration divide in Europe

- The main migration stream in the last 30 years from the East to the West (including southern Europe) of Europe
- Serious consequences in the East: low fertility & higher mortality & outmigration imply accelerated long-term demographic decline
- Uncertain data on migration: data gaps, incomplete data & estimates
- → European migration split: the shrinking Central & Eastern & south-Eastern Europe (except for Russia) vs. the expanding West, South & North

Population increase due to migration 1990–2017 (%)



East-West division in estimated net migration, 1990-2017

Source: *European Demographic Data Sheet* 2018; http://www.populationeurope.org

Population change due to migration and natural population decline, 1989-2017 (selected European countries, in %)



Source: European Demographic Data Sheet 2018; www.populationeurope.org

CEE migration closely correlated with economic development

GDP per capita in 2005 (in PPP) and cumulated population change due to migration, 1990-2016



Sources: GDP data: World Bank database (2018); migration: *European Demographic Data Sheet 2018*; http://www.populationeurope.org

European migration closely correlated with economic development

GDP per capita in 2005 (in PPP) and cumulated population change due to migration, 1990-2016



Sources: GDP data: World Bank database (2018); migration: *European Demographic Data Sheet 2018*; http://www.populationeurope.org

The diversity of East-West European migration

Migration streams from Romania and Albania



Source: own computations based on Eurostat database (2018) and data from German statistical office (based on citizenship)

Where has everyone gone? Young Romanians abroad

Romanian "losses" due to migration

- Age 30-34: peak reproductive and productive ages, high cumulative migration
- In 2014, ca 1.78 mill. Romanians surviving, out of 1.86 mill.
 born in 1979-83



Where has everyone gone? Young Romanians abroad

Romanian "losses" due to migration

- Age 30-34: peak reproductive and productive ages, high cumulative migration
- In 2014, ca 1.78 mill. Romanians surviving, out of 1.86 mill. born in 1979-83



Source: own estimations based on Eurostat database

Where has everyone gone? Young Moldovans abroad

Share economically active population estimated working abroad:

2000: 8.4%; 2013: 27.0% (UNFPA, CCD/INCE 2014, Tab. 9.1)

Split families, abandoned kids:

- 1.4% of kids left without parental care & placed in institutions in 2005
- >20% of school-aged kids had parents living abroad in 2005-10

(UNFPA, CCD/INCE report 2014, Tab. 6.4)

Managing population decline & ageing

PREMI

BalkanInsight

COUNTRIES V IN FOCUS V NEWS

Mass Depopulation Threatens Bosnia's Future

BIRN Prijedor, Sarajevo BIRN May 18, 2015

Bosnia faces bleak future as more and more citizens emigrate, lea ethnic tensions and economic and social decline.

Romanian hospitals in crisis as emigration takes its toll

Thousands of doctors and nurses have left Romania in past decade, leading to dire staff shortages





We have to change absolutely everything if people are going to stay': Gabriela Dumitru, 65, a maternity ward doctor in Slobozia, Romania. Photograph: Shaun Walker/The Guardian

abriela Dumitru was supposed to retire years ago, but instead, she's working longer hours than ever before. The 65-year-old is one half of a team of two doctors at the neonatology ward in Slobozia, a depressed town about two hours' drive from Romania's capital, Bucharest.



LIFESTYLE AUGUST 23, 2017 / 1:34 PM / 2 YEARS AGO

Depopulation turns Serbian villages into ghost towns

REPUSNICA, Serbia (Reuters) - Repusnica was once a bustling village on the slopes of Mount Stara Planina in Serbia. Now its bars lie empty, its houses stand shuttered and nobody walks its streets.

3 MIN READ



Future outlook and challenges: continuing outmigration and depopulation?

Strong desire to emigrate in many countries



Source: Lavrič, Miran & Jusic, Mirna & Tomanovic, Smiljka. (2019). YOUTH STUDY SOUTHEAST EUROPE 2018/2019.

Potential net migration index, 2015-17 (Gallup)



Based on phone surveys covering the following Q: Ideally, if you had the opportunity, would you like to move permanently to another country, or would you prefer to continue living in this country? Youth = age 15-29

Source: Potential Net Migration Index; Gallup; http://news.gallup.com/migration/interactive.aspx; accessed 21 October 2019

Observed and projected population change, with and without migration, 1989-2050 (CEPAM scenarios)



Source: Projected population based on *SSP2 CEPAM Medium* and *SSP2 CEPAM Zero Migration* Scenarios in: Centre of Expertise on Population and Migration (CEPAM) Project (collaboration between JRC and IIASA) // Lutz W. et al.: *Demographic and Human Capital Scenarios for the 21st Century: 2018 assessment for 201 countries.*

Limits to potential fertility upturns: emigration and population momentum driving sharp falls in numbers of births



Source: Observed live births: Eurostat database (2019) and UN World Population Prospects 2019. Projected live births, 2020-2099: *UN World Population Prospects 2019* (Medium Fertility scenario); File File INT/1: Interpolated demographic indicators by region, subregion and country, annually for 1950-2099

Limits to potential fertility upturns: emigration and population momentum driving sharp falls in numbers of births











Challenges of ultra-fast population aging (Bosnia and Herzegovina)

Alternative Scenarios to 2100

Projection Results by Scenario (SSP1-3)											
	2015	2020	2030	2050	2060	2075	2100				
Population (in millions)											
SSP1 - Rapid Development	3.54	3.36	2.98	2.15	1.75	1.22	0.59				
SSP2 - CEPAM Zero Migration	3.54	3.50	3.40	3.06	2.87	2.58	2.15				
SSP2 - CEPAM Medium	3.54	3.36	2.97	2.11	1.71	1.19	0.66				
SSP2 - CEPAM Double Migration	3.54	3.21	2.57	1.41	0.95	0.48	0.21				
SSP3 - Stalled Development	3.54	3.41	3.27	2.95	2.83	2.69	2.69				
Proportion age 65+											
SSP1 - Rapid Development	15.7%	18.7%	26.7%	43.8%	52.4%	62.6%	76.9%				
SSP2 - CEPAM Zero Migration	15.7%	17.9%	22.8%	29.5%	33.5%	36.8%	40.3%				
SSP2 - CEPAM Medium	15.7%	18.6%	25.8%	39.3%	45.1%	49.0%	52.0%				
SSP2 - CEPAM Double Migration	15.7%	19.3%	29.4%	54.1%	63.6%	66.1%	44.5%				
SSP3 - Stalled Development	15.7%	18.2%	22.8%	26.0%	26.5%	25.5%	24.0%				

Source: Projected population scenarios in: Centre of Expertise on Population and Migration (CEPAM) Project (collaboration between JRC and IIASA) // Lutz W. et al.: *Demographic and Human Capital Scenarios for the 21st Century: 2018 assessment for 201 countries.* (Table on p. 282)

Population decline should not be addressed through birth rates only

- Key role of outmigration
- Population decline will not slow down unless migration trends reversed: slowing-down out-migration & attracting immigrants
- Paramount role of economic conditions, migration policies
- Also infrastructure building, governance, investment in families
- Migration will have a stronger impact on long-term trends in the number of births than fertility rates: will most of the Bosnian/Serbian/Albanian/Croatian kids in the future be born in the region or in Western & Southern Europe?
- Family policies: Shift away from quantitative targets to softer qualitative criteria: well-being, happiness, health, human capital
- Rapid adaptation policies needed: aging, depopulating regions

Population decline as a policy opportunity? Investment in kids, families and young adults

Smaller population and fewer kids may be helpful for the qualitative shift in family policy, improving human capital, and for achieving some of the SDGs

- Easier to expand childcare provision, improve quality of education and healthcare for kids & pregnant women
- Potentially easier to address youth unemployment & the high share of NEETs
- Easier to expand child benefits and eradicate poverty in larger families
- Opportunity to make housing in cities & towns more accessible for young people
- Opportunity to increase the quality of schools & teaching



European Demographic **Data** 2018

Contribution of migration and natural population change to long-term population growth in Europe, 1990–2017



Europe today remains divided by long-term population trends. This division mostly follows the past geopolitical cleavage between Europe's East and West.

Countrie in the comparatively rich regions – the West, South, and North – continue to experience rising population sizes, due to a combination of minor natural population increases and higher levels of immigration than emigration. Only a few countries, including Germany and Italy, as wa slight natural Gerease in their populations between 1990 and 2017, due to deaths outnumbering births. Natural charges in population size have been overtaken by trends in migration, pushing change in the opposite direction. Iteland, Norway, Spain and Switzerland as well as several other smaller countries have seen their populations capand by more than 2016 sizes (1990. Kcept in leaken, ringration has driven most of the recent population espansion.

In contrast, almost all courties in Central, South-Earem, and Eatem Europe saw substantial population declines, due to a combined effect of natural population decrease and emigration. Several countries, such as Bulgania, Latvia, Lithuania, Muldova, Bosnia and Herzspoynia and Kosovo (not shown) observed a shinking of their populations by 19% or more, urprecedented in times of peace. Several inder courties of the region – Caechia, Slownia, and Slownia – have recorded sight population increase: and in Russia a large surplus of deaths over kirths has been almost entirely offset by positive net migration from the counties of the former Sovie Union.

Data, graphs and featured boxes available at

www.populationeurope.org



Population change in selected countries, 1990–2017 (in %)