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Missing generations? A cohort perspective on cumulated outmigration from South-Eastern, Central and Eastern Europe

Tomáš Sobotka & Kryštof Zeman

29 November 2021, Wittgenstein Centre Conference 2021

„The causes and consequences of depopulation“

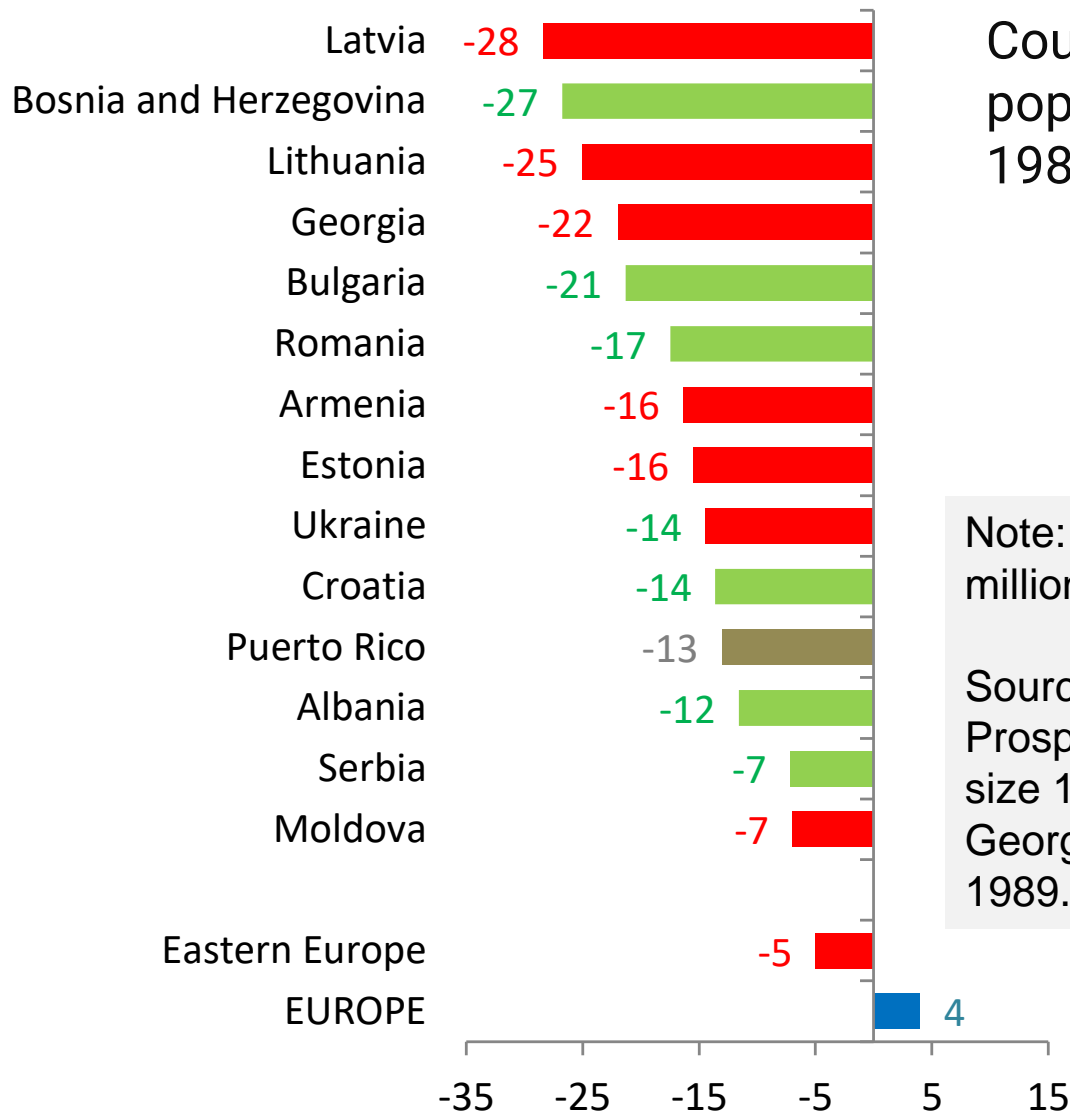
Vienna Institute of Demography
/ Austrian Academy of Sciences

Background: Central and Eastern Europe as a „hotspot“ of global depopulation and outmigration

Depopulation emerging and then accelerating after 1990, especially in South-eastern and Eastern Europe

- Combination of comparatively high and rising mortality (1990s), falling fertility (1990s) and outmigration

Background: Central and Eastern Europe as a „hotspot“ of global depopulation and outmigration



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.

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Outmigration from the region driven by both pull and push factors:

- Push factors: economic shocks, social and political instability, conflicts (ex-Yugoslavia, Caucasus, Moldova), lack of opportunities for young adults
- Pull factors: travel, study and employment opportunities (especially after EU enlargement in 2004 -2011), much higher wages and living standards, established migrant communities

East - West migration has become the key migration stream within Europe → huge differentiation in population trends and prospects across the continent

Central Europe: significant outmigration and immigration streams

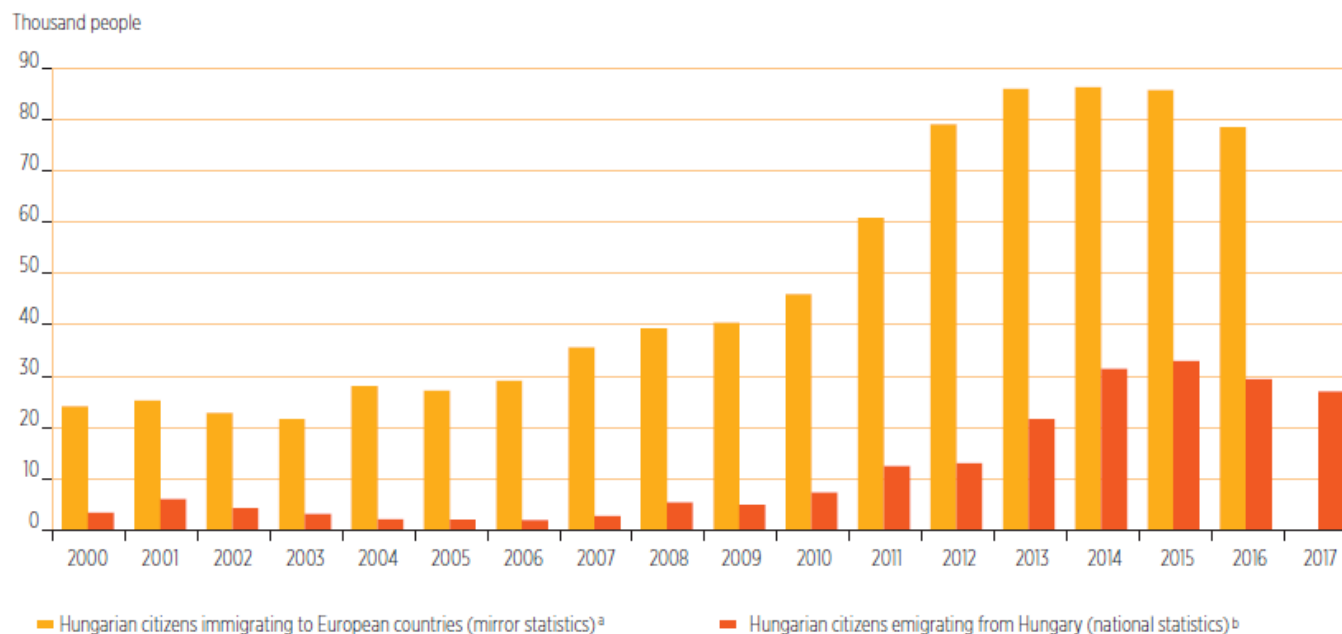
Missing good quality data on outmigration

Outmigration in the region consistently underreported

- In most countries, lack of proper registration system that could track outmigration
- Census data only partly correcting for unreported outmigration
- Population estimates often “too high” – also affecting other demographic indicators
- Scale of depopulation is often underestimated

Data inconsistencies: Two tales of outmigration from Hungary

Figure 10: Number of Hungarian citizens emigrating from Hungary and immigrating to other European countries, 2000–2017



Source: ^a Eurostat database ([migr_imm1ctz]; updated on 16 March 2018), supplemented by data for Germany (DESTATIS) and Austria (Statistik Austria) from 2009 onwards, author's calculation; ^b HCSO, Demographic Yearbooks (based on the Personal Data and Address Register until 2009; the Social Security Identification Number (TAJ) register of the National Health Insurance Fund (OEP) until 2010; and both since 2011).

Note: Due to incomplete data, the United Kingdom does not feature from 2006, and France does not feature between 2000 and 2012.

Source: Figure 10 in Iren Gödri, "International migration," Chapter 12 in Monostori, Judit - Őri, Péter - Spéder, Zsolt (eds.): *Demographic Portrait of Hungary 2018*

Our aims

Analysing cumulative long-term outmigration from a cohort perspective

- Making use of the more reliable data on immigrants from the receiving countries, especially in Europe
- Cohort perspective: cumulative picture of outmigration to date (2020)

Main Q

How many women and men born in selected countries have stayed in these countries, died, or have moved to another country by 2020?

Aims & Data (1)

Main Q

How many women and men born in selected countries have stayed in these countries, died, or have moved to another country by 2020?

- 5-year cohorts 1950-2009 (aged 10-69 in 2020)
- Both absolute numbers and relative shares (relative to each 5-year birth cohort of women and men born in the country)

Countries of birth analysed:

- **Central Europe:** Croatia, Czechia, Hungary, Poland, Slovakia, Slovenia
- **Baltic countries** (Estonia, Latvia, Lithuania), **and Ukraine**
- **South-eastern Europe:** Albania, Bulgaria, Romania

Analyses by cohort / age, sex, country of origin

Data & data sources

Birth cohorts

- Births by country, year (1950-2009) and sex (Human Fertility Database 2021, United Nations WPP 2019 and other databases)

Mortality

- Cohort survivorship (1950-2009) by country and sex until 2020: estimated from the Human Mortality Database (HMD 2021) (data provided courtesy by Dmitri Jdanov, MPIDR)
- Countries and cohorts not included in the HMD: mortality schedules from “similar” countries used instead

Cumulative outmigration

- Data for European countries on population by country of birth, sex and age group in 2020 (Eurostat 2021); totals used when age not available
- UN DESA (2021) estimates of population by sex and country of birth in 2019 used for countries not available in Eurostat
- Totals for each sex redistributed by age from known data

Population alive & staying in country of birth: estimated as a “residual”

Main expectations

Income and economic development

- Higher overall outmigration expected from countries with weaker economies and lower income (lower GDP per capita in PPP)
- More age-differentiated profile, with more migrants among younger cohorts expected in these countries

Geographic proximity

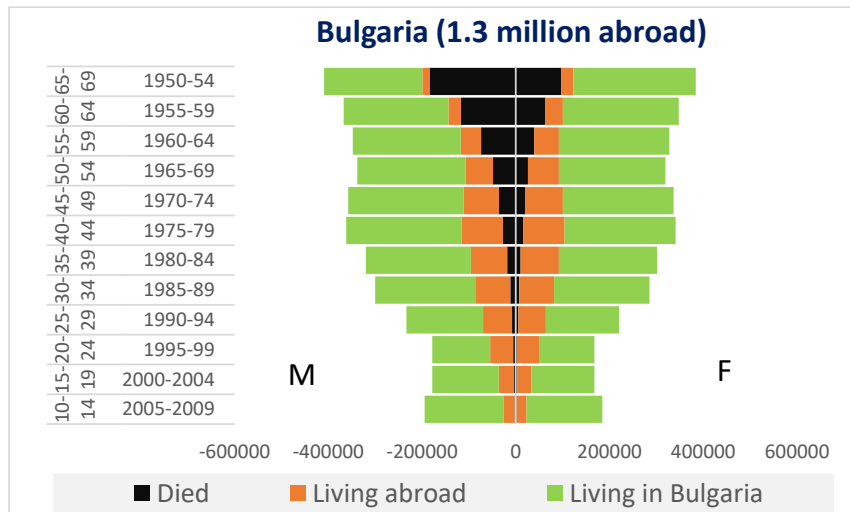
- Central European countries expected to have a more even outmigration profile by cohort (significant outmigration from the 1990s, smaller impact of EU accession)

Sex differences

- Women dominate outmigration in younger cohorts and age groups, men dominate in older cohorts and groups, especially above age 30 (“male breadwinner” model, women often staying with kids in their country of origin)

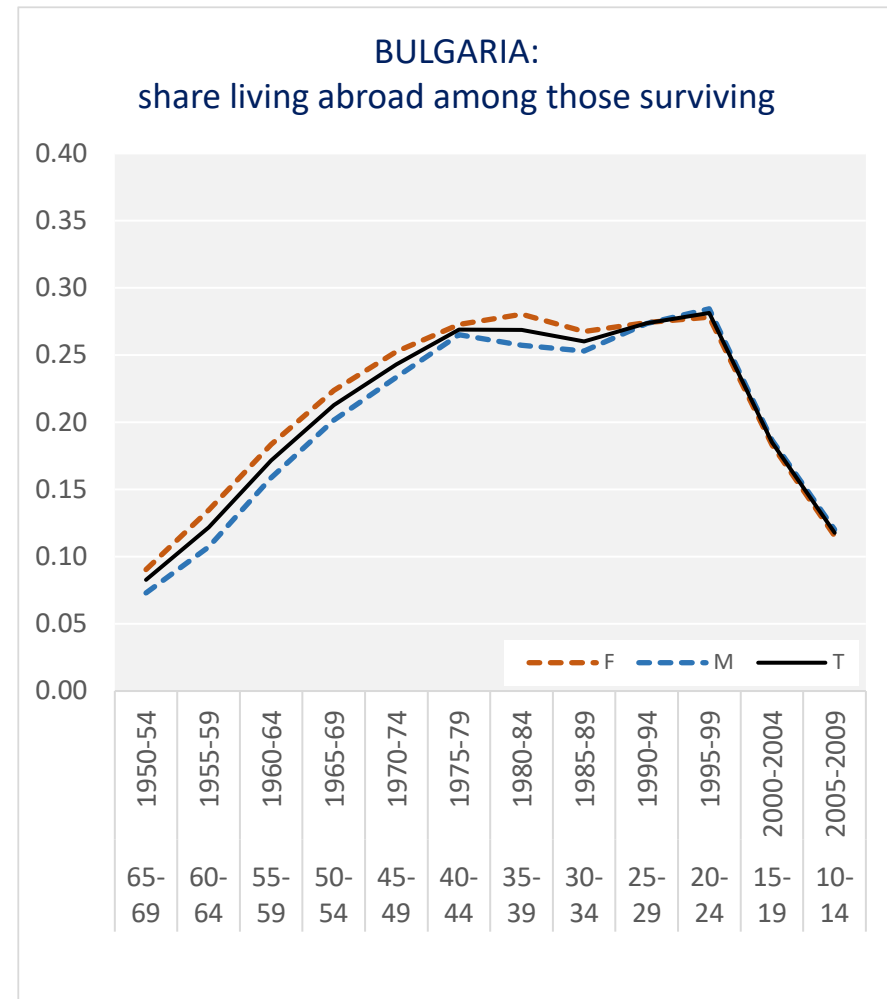
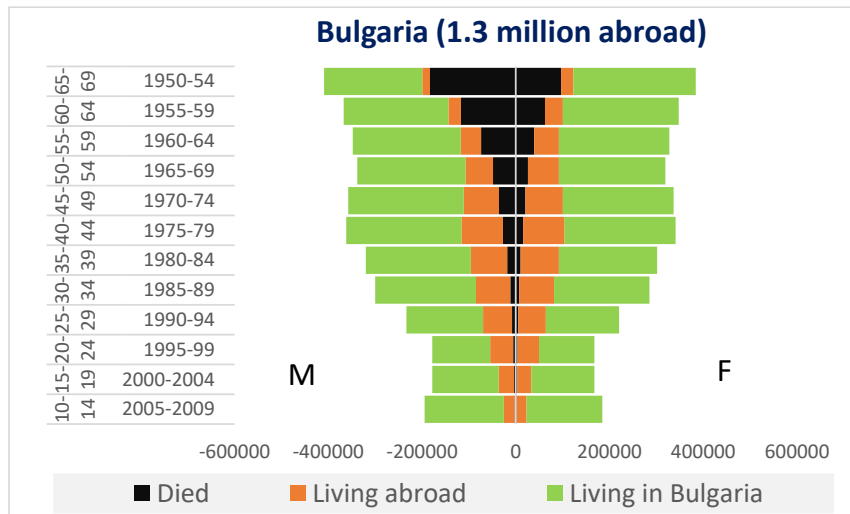
Main indicators for each country (example of Bulgaria)

Absolute numbers and relative shares of F and M born in the country by their status in 2020 (died, moved abroad, stayed in the country)



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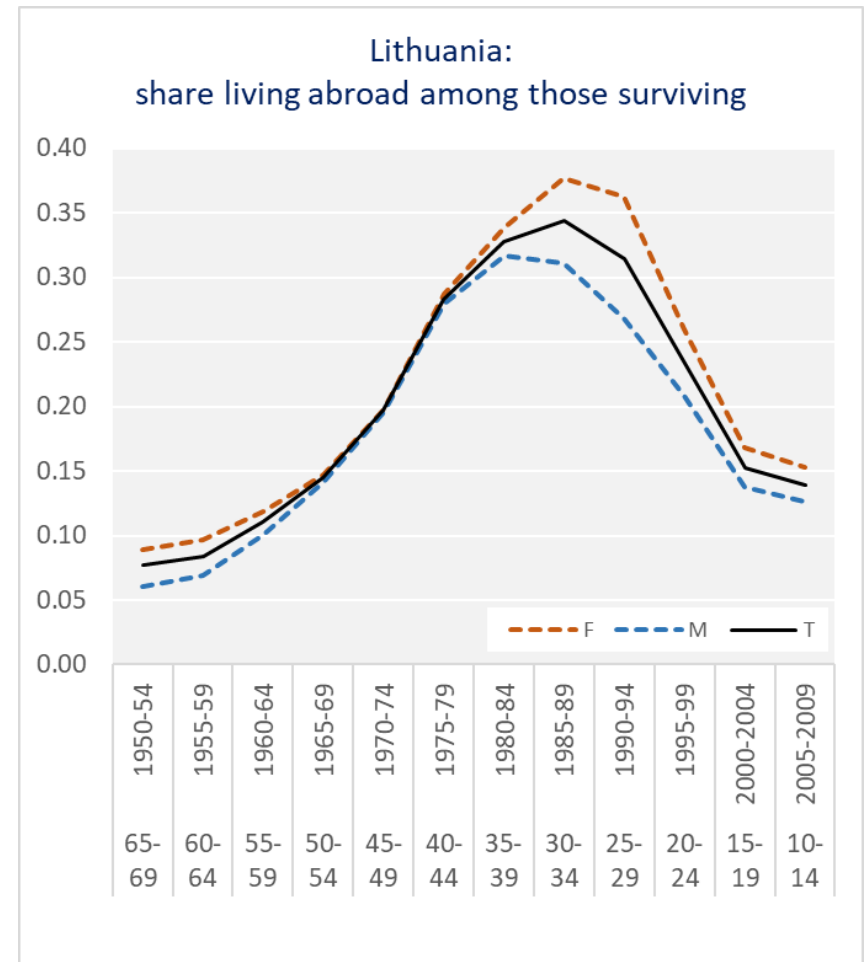
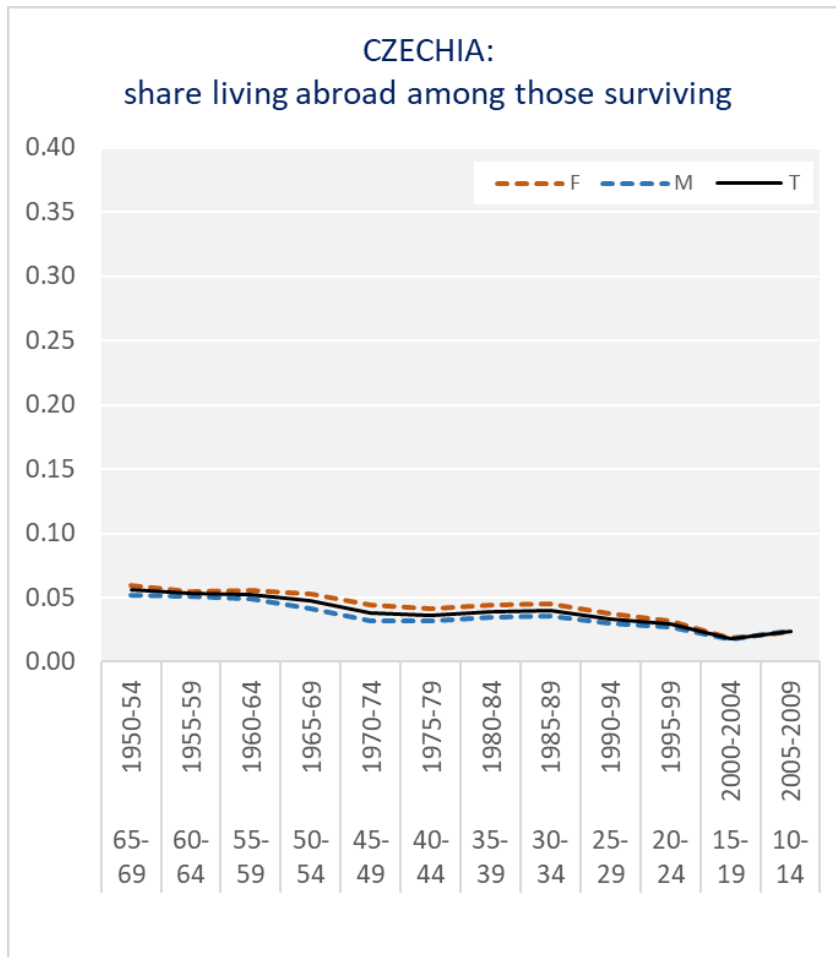
Relative profiles:

Share of F and M living abroad among those born in BG and still surviving in 2020 (by cohort / age group)

Results

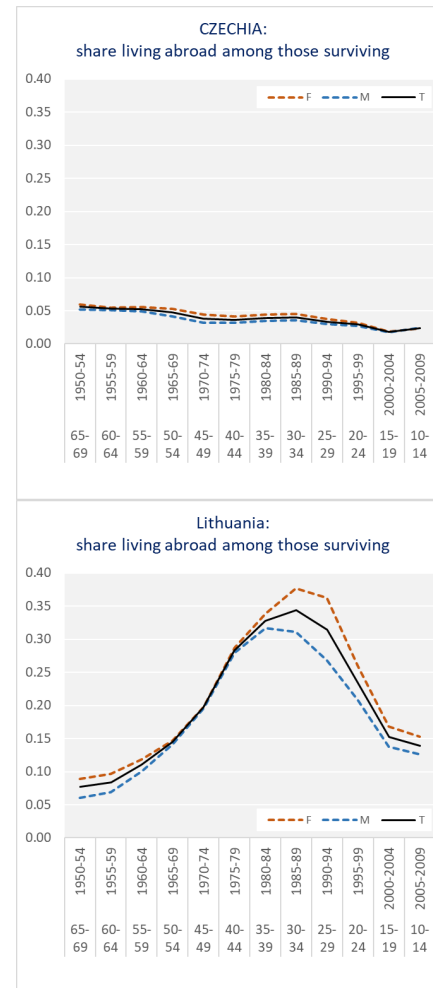
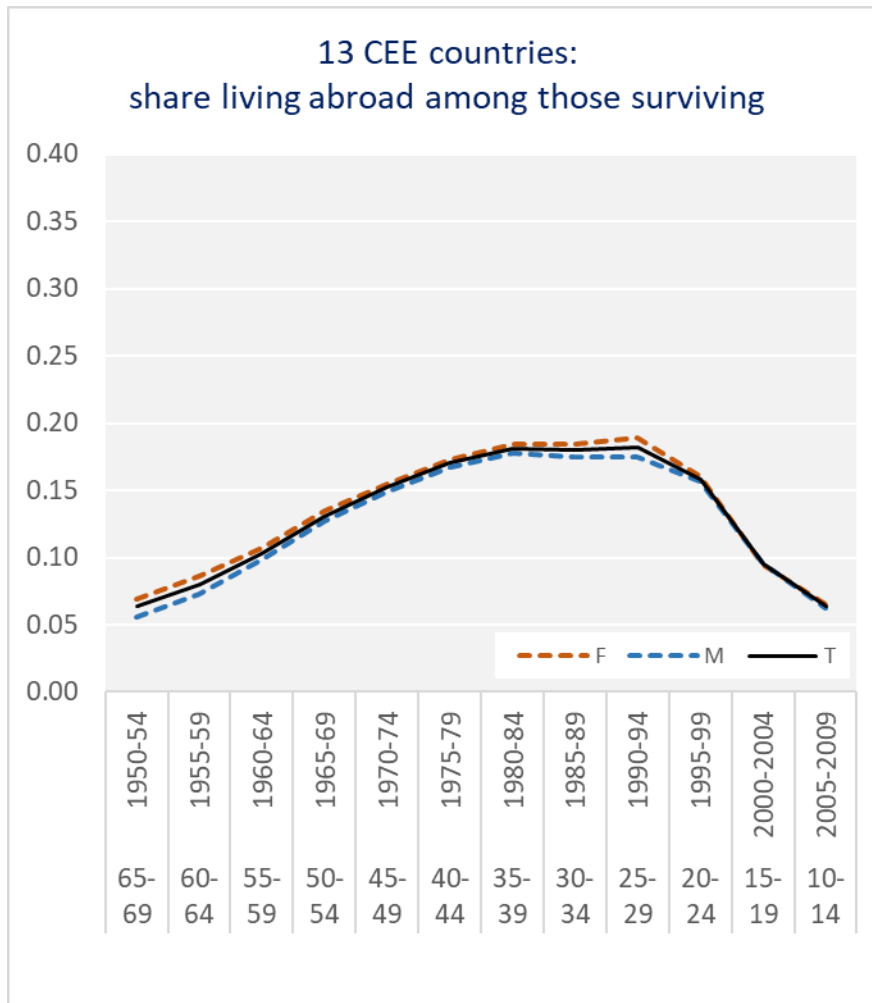
Diversity of relative outmigration profiles

Share of F and M living abroad among those born in each country and still surviving in 2020

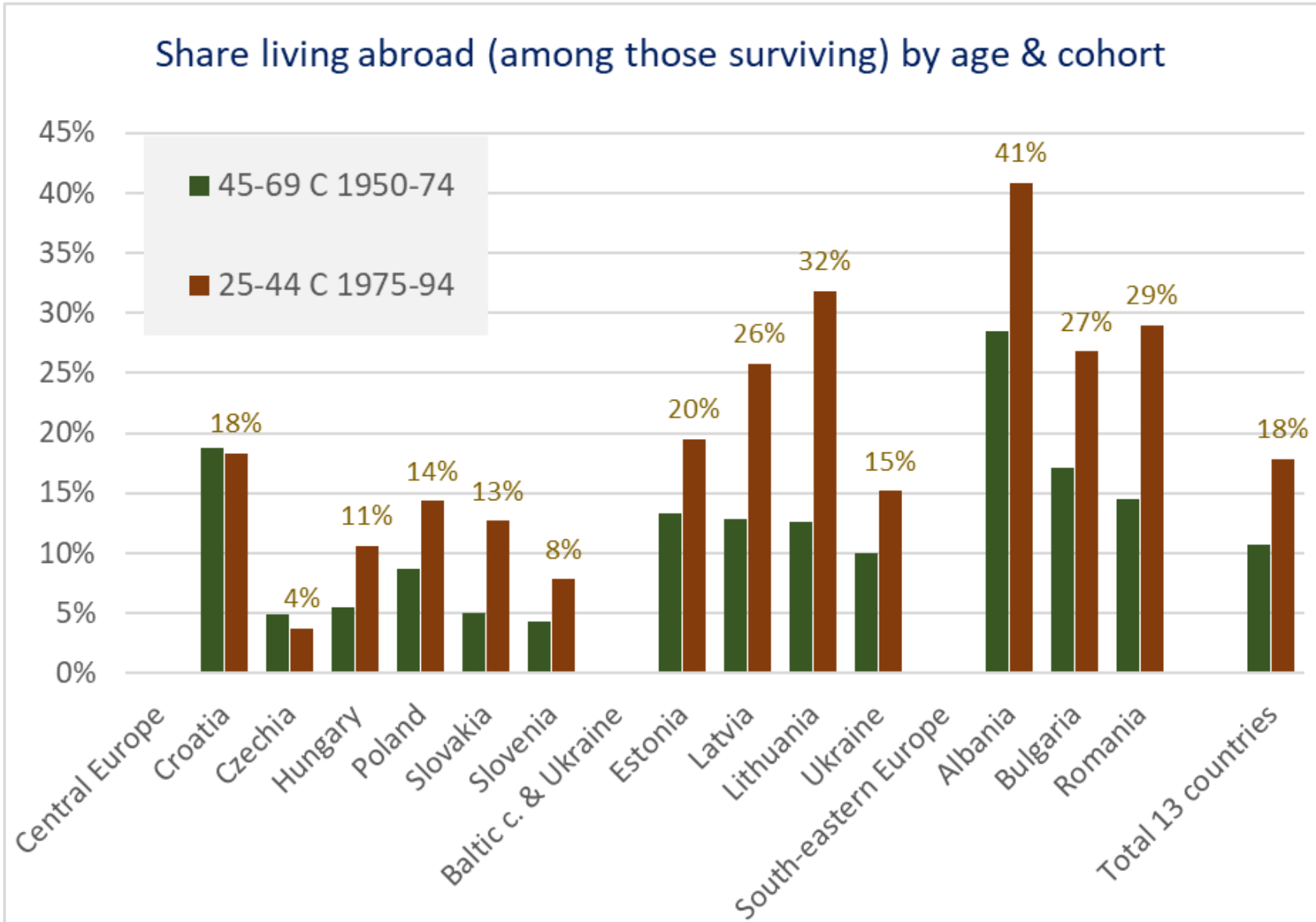


Relative outmigration profiles: all countries

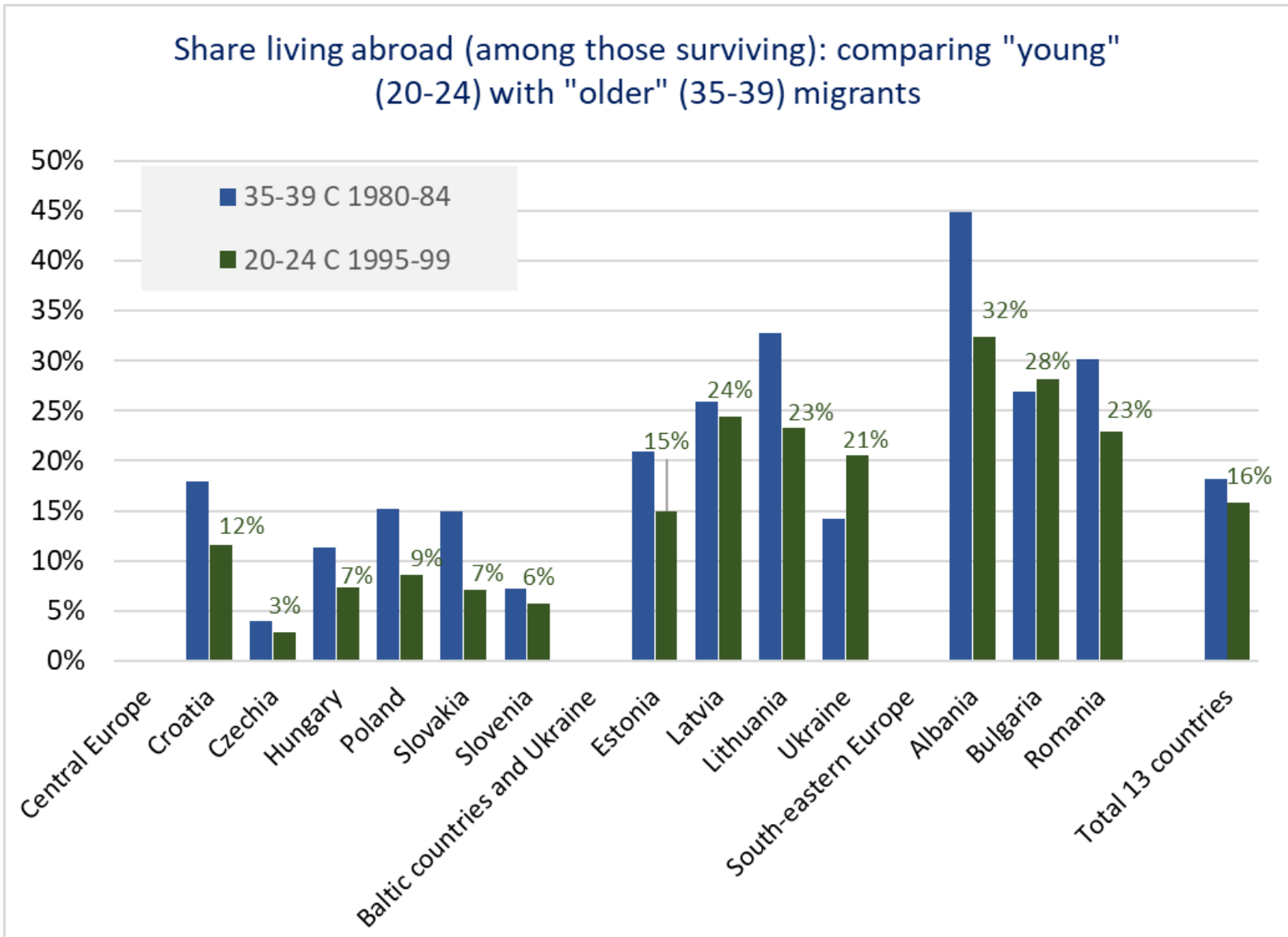
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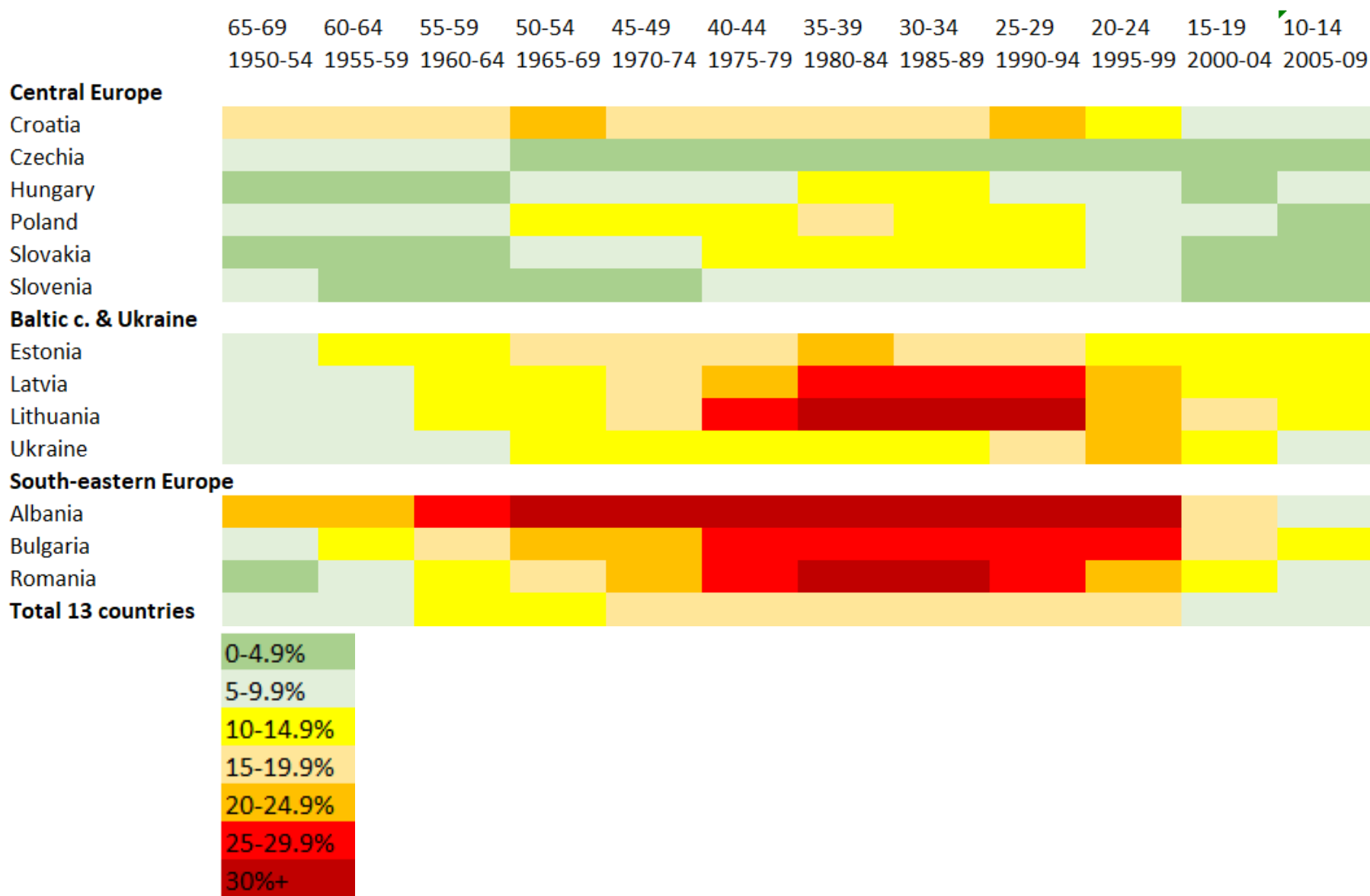
Share living abroad by broad cohort groups



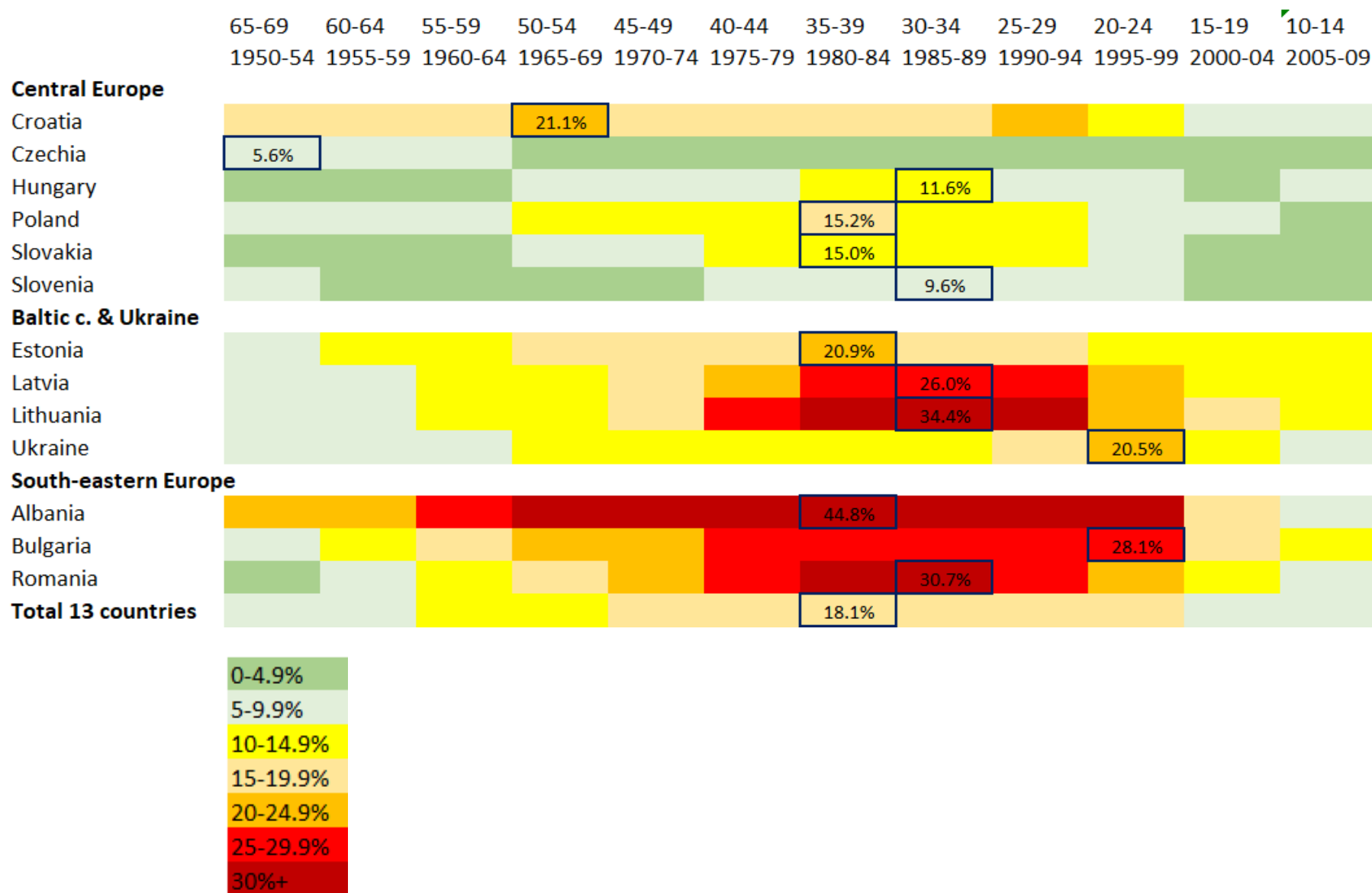
Share living abroad: focus on a „young“ cohort 1995-99



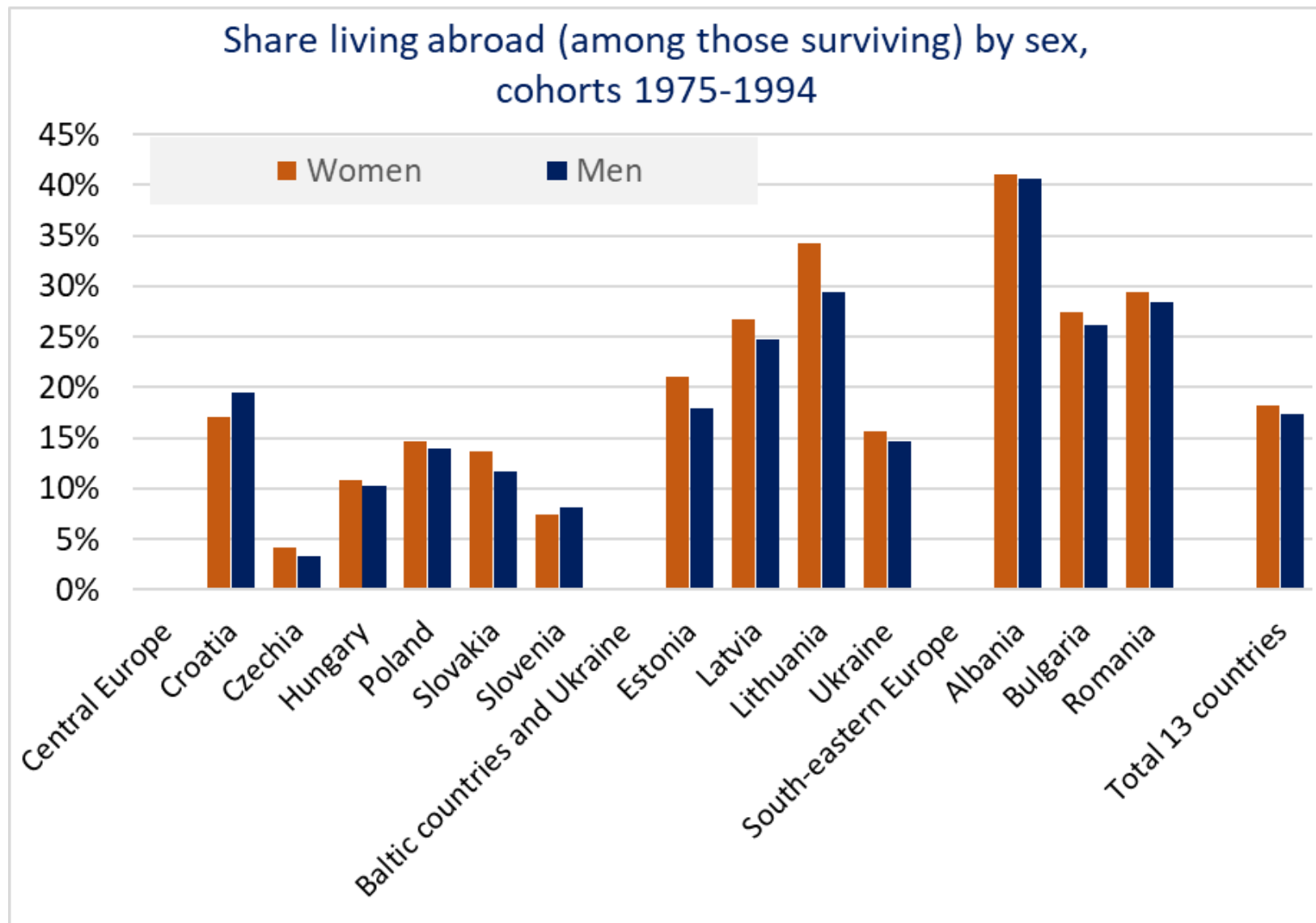
Share living abroad: summary for all countries and cohorts



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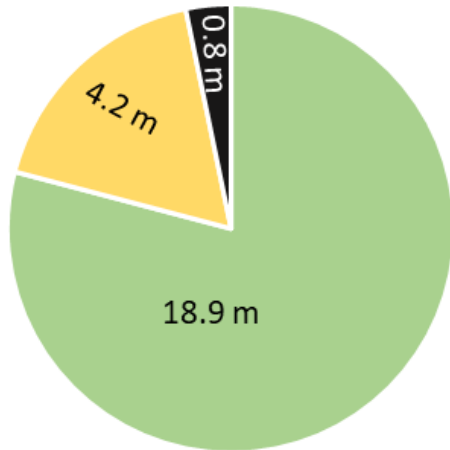


Share living abroad by sex: female dominance



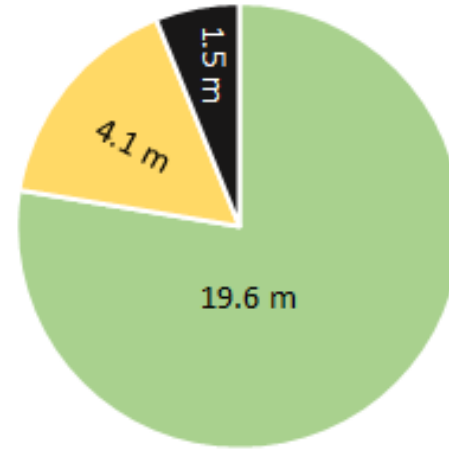
Cohorts born 1975-94: total distribution across 13 countries, by sex

F (23.9 million)



■ Stay in the country ■ Live abroad ■ Died

M (25.2 million)



■ Stay in the country ■ Live abroad ■ Died

Cohort 1975-94 (age 25-44 in 2020): 18% of those surviving (8.3 million / 49 million born) living abroad

All analysed cohorts (1950-2009): 13.4% of those surviving (16.4 million / 139 million born) living abroad

Discussion

Cohort perspective useful for assessing cumulative long-term impact of outmigration

Huge impact of outmigration: major driver of depopulation

- Especially in Baltic countries, Ukraine, South-eastern Europe
- Strong age/cohort profile in many countries: largest cumulative “loss” due to outmigration in the 1980s cohorts (age 30-39 in 2020)

Cross-country differences: Our expectations largely supported, except for gender profile (sex differences)

- Sharper age/cohort differentiation in poorer countries and in more geographically peripheral countries (from destination countries)
- Outmigration closely correlated with 2005 GDP PPP
- Women more likely to live abroad also among older cohorts

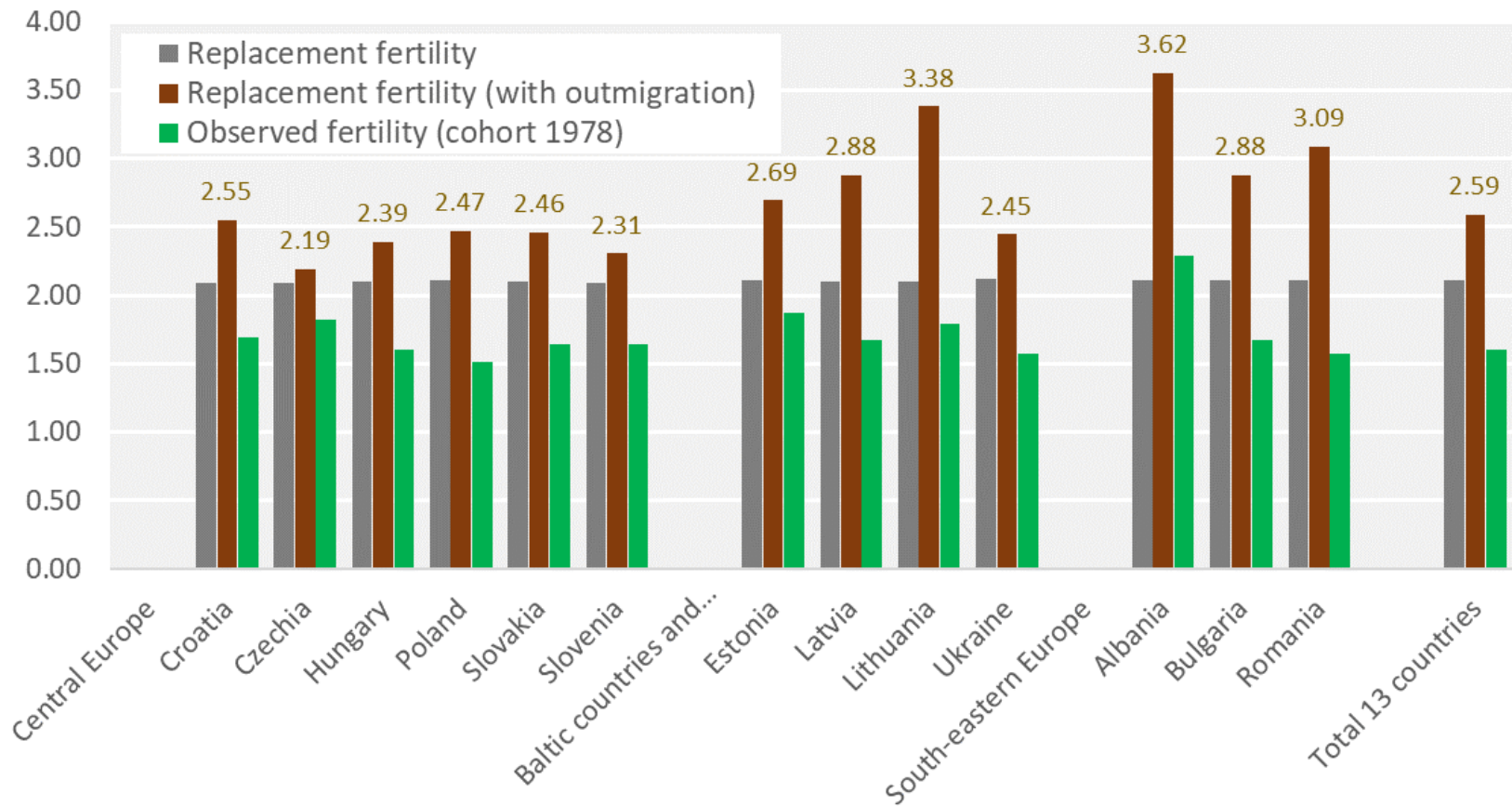
Path dependency? Past migration also correlates with migration intentions (Gallup poll 2015-17, Potential Net Migration Index)

Discussion:

impact of outmigration on replacement fertility

What fertility rate would be needed for “native” cohort of women to reproduce themselves in the country, accounting for outmigration?

Replacement fertility of "native-born" women accounting for outmigration:
cohort 1985-1989



Thank you!

CONTACTS

tomas.sobotka@oeaw.ac.at

krystof.zeman@oeaw.ac.at

ACKNOWLEDGEMENTS:

Thank you to Dmitry Jdanov (MPIDR) for sharing his R script and computations to reconstruct cohort mortality schedules from the Human Mortality Database data

Limitations

- Data and estimates on immigrants are far from perfect: missing irregular migrants, return migration might be underreported
- Age and sex distribution of immigrants by country of birth (CoB) missing for some European countries and for all non-European countries
 - ➔ we have redistributed migrants by CoB with unknown age distribution using age distribution of all migrants with the same CoB with known distribution, but this assumption might be biased
- Cohort mortality patterns by country of birth derived from cumulative period data for a given country and subject to possible biases in countries with problematic population statistics
- Not taking migrant status into consideration when computing survivorship
- Applying mortality schedules of similar countries for countries, where we do not have longer series of cohort mortality data