Background: A „big picture“ of fertility trends

Global level:
• Disappearing distinction in fertility and fertility preferences between the middle-income countries and the rich countries
• A shift to later childbearing – with wide regional differences

European level:
• A broad stabilisation in cohort fertility, unstable period fertility trends
• A “great divergence in fertility” (Billari 2018)?
• Debates on the drivers of fertility change: labour market, economic conditions, education, gender, migration
• Policy discussions & responses
Background: the new challenges

The long-term experience of low fertility perceived with mixed feelings

- Worries about the consequences for countries (depopulation, accelerated aging, threat to national identity) and individuals
- Discussions often still focused on quantity (population numbers) and crude indicators of population age structure with fixed age boundaries (OADRs and similar)
- Positive aspects of low fertility often overlooked
- Policy reactions: the rise of pronatalism in official rhetoric and some policies (e.g. Russia, Belarus, Turkey and, outside Europe, Japan, Korea, Iran); also rising ethno-nationalism
Policy concerns: the global rise of pronatalism

Number of countries that aim to increase their fertility rate, out of 50 developed low-fertility countries globally.

*UN World Population Policies Database, 1976-2015*
“Third child: triple riches in the Third Millenium” (Pronatalist poster in Moscow, 2013)

Agenda

- Fertility in highly developed countries: temporary or long-term divisions?
- Fertility trends after the economic recession: surprising regional contrasts and continuing postponement of parenthood
- Continuing shift to delayed parenthood
- Unstable fertility, stable preferences?
- The role of labour market conditions and migrant fertility
- Changing education gradients?
- Discussion

Focus: Europe + selected insights on highly developed low-fertility countries and regions: North America, East Asia, Australia, New Zealand
Fertility in highly developed countries: temporary or long-term divisions?
The new fertility divide?

- A broad stabilisation in cohort fertility and childlessness in most countries (Myrskylä et al. 2013)

Regional differentiation: Very low fertility in East Asia, Southern, Central and Eastern Europe

- McDonald (2006): cultural/regional/policy divide: countries with “very low fertility” (TFR < 1.5) vs. countries with higher fertility
- Rindfuss et al. (2016): A global “bifurcation” in low fertility levels; two distinct fertility “regimes”
- Billari (2018): A new “Great Divergence” in fertility?

Key issues with the “bifurcation” idea
- The regional divisions often identified on the basis of period TFRs which may change fast and which are affected by tempo effect
- Not all countries/regions fit this description
Period TFR (2010-15) and completed cohort fertility; women born 1974

Cohort fertility trends: Not so easy to spot the divide

Completed fertility (children per woman), selected countries, women born 1940-1975

Sources: Sobotka (JBS, 2017); data based on Human Fertility Database, Council of Europe (2006), CFE database, national statistical offices, Census data, and own computations and projections
Cohort fertility trends: German-speaking countries

Completed fertility (children per woman), selected countries, women born 1940-1976 (1978)

Sources: Human Fertility Database, Geburtenbarometer (for Austria), European Demographic Data Sheet 2010-18 (for EU-28 data)
Period fertility rates: the end of the „Great divide“?

Period TFR, European regions, US and Korea, 1980-2016 or 2017

Source: UNFPA SWOP 2018; European Demographic Datasheet 2018
Fertility trends after the economic recession: surprising regional contrasts and continuing postponement of parenthood
Fertility ups and downs after 2000

2000-2008

- Almost universal upturn in period Total Fertility Rate (TFR) across Europe
- Strong fertility recovery in Central & Eastern Europe; ending of the “lowest-low” fertility (TFR<1.3)

2008-2013

- Economic recession linked with declining TFRs, especially in the South
- Renewed fertility postponement at younger ages

2013+

- Differentiated trends across Europe: fertility recovery especially in Central & Eastern Europe, but also Germany, Austria
- Surprising period fertility declines in all higher-fertility regions
Period fertility rates: the end of the „Great divide“?

Source: UNFPA SWOP 2018; European Demographic Datasheet 2018

Period TFR, European regions, US and Korea, 1980-2016 or 2017

TFR, European regions, US and Korea, 1980-2016 or 2017

1.00 1.25 1.50 1.75 2.00 2.25 2.50


Southern Europe
Western Europe
Germany, Austria, Switzerland
Nordic countries
Central-Eastern Europe
South-Eastern Europe
Eastern Europe
EU-28
United States
Republic of Korea

Source: UNFPA SWOP 2018; European Demographic Datasheet 2018
Contrasting period fertility trends in Europe, 1980-2017

Source: Human Fertility Database, Council of Europe 2006, Eurostat, national statistical offices
Benchmark

Finland’s Welfare State Has a Massive Baby Problem

The number of newborns has fallen to its lowest level in 148 years

By Raine Tiessalo
September 19, 2017, 6:00 AM GMT+2

Low birth rate “approaching epidemic”

Medical professionals encourage government to create incentives for couples to have more children

February 13th, 2013 11:19 am by admin
Contrasting period fertility trends in Europe, 1980-2017

Source: Human Fertility Database, Council of Europe 2006, Eurostat, national statistical offices
Period fertility rates: the end of the „Great divide“?

Period
TFR,
Germany
and
Norway, 1960-2017

Source: Eurostat database (2018) and national statistical offices
Period fertility rates: the end of the „Great divide“?

Source: Eurostat database (2018) and national statistical offices
Continuing shift to delayed childbearing
What explains the unexpected fertility declines after the economic recession?

Was the decline in TFR in parts of Europe driven mainly by the shift in fertility timing?

A renewed postponement of childbearing: continuing trend post-recession; probably also a “squeeze” in fertility of lower-educated women

- Fertility declines especially strong among young women < age 25
- Fertility decline also among migrant and lower-educated women
- Continuing economic instability & precarious jobs among lower-qualified women?
Falling fertility among teenage & young adult women

Cumulative age-specific fertility rates at ages 15-24, selected countries, 2000-2016

The continuing postponement of first births

Mean age at first birth, selected European countries, South Korea and the US, 1970-2016

Source: UNFPA SWOP 2018; European Demographic Datasheet 2018
The rising importance of fertility rates at later ages

Source: Computations based on Eurostat data (2018)
Unstable fertility, stable preferences?
Instability in period fertility trends

- Modern contraception allows couples to react to changing period conditions, economic and labour market trends, family policies, expanding education and other factors.
- Planned or intended births can be – to some extent – flexibly “postponed”, “advanced” or “given up”.
- Tempo effects still drive ups and down in period fertility.
- Period TFRs can also show remarkable increases.
- Cohort fertility shows much more stability.
Period fertility trends still driven by tempo effect (Czechia and Norway, 1980-2017)

Source: European Demographic Data Sheet 2018; www.populationeurope.org
Period fertility trends still driven by tempo effect (Czechia and Norway, 1980-2017)

Source: European Demographic Data Sheet 2018; www.populationeurope.org
Period fertility trends still driven by tempo effect (Czechia and Norway, 1980-2017)

Source: European Demographic Data Sheet 2018; www.populationeurope.org
Stability in fertility ideals and preferences

Ideal family size in Europe: mean % distribution across analysed countries

Family size distribution, women born 1974 (in %)

<table>
<thead>
<tr>
<th>Cohort fertility</th>
<th>CHILDLESS</th>
<th>ONE CHILD</th>
<th>2 CHILDREN</th>
<th>3+ CHILDREN</th>
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<tr>
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<td>20</td>
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<td>15</td>
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<td>Spain (1.30)</td>
<td>26</td>
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</table>

Source: State of the World Population 2018, Figure 32
Childlessness rankings and change: East Asia and Southern Europe jumping up (top 6 and bottom 6 countries)

- Fastest increases in childlessness: Japan, Korea, Spain, Taiwan, Italy

Data: 46 low-fertility countries; based on Cohort Fertility and Education (CFE) database (www.cfe-database.org) and Human Fertility Database (HFD)
The role of labour market conditions and migrant fertility
Economic and labour market conditions

- Most theories & empirical evidence suggest pro-cyclical correlation between economic growth and fertility (may also operate via marriage and partnership formation)

- Multiple effects of employment uncertainty: part-time jobs, unemployment, time-limited contracts, self-employment, downward mobility, income loss

*The role of precarious position of young adults & intergenerational inequalities*

Adsera (2004): High unemployment & self-employment depress fertility, especially in Southern Europe
Close correlation of fertility trends with unemployment, especially in Southern Europe

Period TFR (births per woman) vs. unemployment rate (%) in Portugal, 2000-2015 (fertility rates lagged by 1 year)
Fertility response to unemployment during the recent recession

Figure 10: Elasticity of age- and parity-specific fertility rate to female unemployment rate

Note: 95% Confidence Intervals reported.

Timing of births before and during the recession: EU vs. Spain

Changes in age-specific fertility five years before (2003-8) and five years into the recession (2008-13)
Migrant fertility rates: towards convergence?

Source:
European Fertility Datasheet 2015
Share of births to foreign-born mothers & net effect of migrant fertility on the TFR, 2013

Source: European Fertility Datasheet 2015; www.fertilitydatasheet.org
Trends in fertility of native and foreign (or foreign-born) women: temporary uptick due to „refugee migration“?

Data for Austria by country of birth; data for Germany by country of citizenship

Data: Austria: Geburtenbarometer Austria, computations by Krystof Zeman; Germany: data published by destatis / Statistisches Bundesamt; https://www-genesis.destatis.de
Education and fertility: shifting relationship
Why education trends in fertility matter?

- Historical negative fertility gradients by social status among women (Skirbekk 2008)
- Often due to higher childlessness among better educated women
- Education gradient mostly unintended: No consistent evidence of systematic differences in fertility preferences
- Fertility trends among highly educated will drive the overall future fertility trends
Diminishing education differentials in fertility?

What factors could drive the diminishing or reversing fertility gradient?

- Higher gender equality,
- Changing patterns of union formation; high earning potential among women new advantage (Van Bavel 2012, 2017)
- Higher educated women more “empowered” (information, knowledge, abilities) to act on their family plans (Lutz 2017; Testa 2017)
- Declining selectivity of the better educated
- Unstable labour market and social status disadvantage of the lower educated women (many remain without a partner & kids), disappearing jobs for the middle-educated (Adsera 2017)

Evidence for fertility convergence for the Nordic countries (Jalovaara et al. 2018), Belgium, possibly, US (Hazan & Zoabi 2015)
Continuing wide diversity in education gradients across countries: women born 1930-1970

Continuing wide diversity in education gradients across countries
Continuing wide diversity in education gradients across countries
The changing relationship between education, employment and first birth intensity during the recession period in Andalusia, Spain

Parity and age-adjusted total fertility rate for first births (PATFR) by education and work status, 2000-2013

Source:
Graph constructed from the data in Figure 1 in Diego Ramiro-Fariñas, Francisco J. Viciana-Fernández and Víctor Montañés Cobo. 2018. “Will highly educated women have more children in the future? In Southern Europe, it will largely depend on labour market condition” Vienna Yearbook of Population Research 2017 (Vol. 15)
Discussion: Key features of European fertility trends
Key fertility trends

- Period fertility instability vs. broad cohort fertility stabilization
- Stable fertility preferences & continuing dominance of a two-child family
- Changes in fertility timing & fertility postponement continue affecting period fertility trends
- Policy responses: the rise of family-friendly and pro-natalist policies with mixed results
- Contrasting trends in the shift away from marriage and to diverse family arrangements
Shifting childbearing away from marriage: contrasting trends

Source: UNFPA SWOP 2018;

Percentage of births outside marriage, Selected countries and regions, 1970-2016

Source: UNFPA SWOP 2018;
Recent fertility trends & surprises

- Surprising continuation in period TFR declines in the regions with “higher” (moderately low) fertility
- Changes in regional rankings: temporary convergence driven by the shifting timing of births?
- German-speaking countries: moving towards the middle of European fertility distribution with a small boost from migrant fertility
- Renewed falls in young age fertility in most countries, continuing postponement → fertility at young ages becoming marginal
- Southern Europe & East Asia new “hotspots” of very low fertility; South Korean TFR of 1.05 in 2017 (0.83 in Seoul) lowest globally despite increasing spending on families & pronatalist policies
- East Asia: extreme example of high parental investment in kids & of the quantity-quality tradeoff?
Future expectations: a broad convergence to moderately low fertility?

Projected TFR change in 2015–2050 (medium variants of WPP 2015, NSO, WIC expects) by the observed 2015 TFR level

Source:

“Low fertility future? Projections based on different methods suggest long-term persistence of low fertility”

Paper presented at the European Population Conference, Brussels, 2018
Parenthood: Never has been so complicated?
Data, texts, graphics, rankings & info on European fertility and population trends

www.fertilitydatasheet.org
www.populationeurope.org