

# Pathways to low fertility: European experience

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**EURREP**  
FERTILITY AND REPRODUCTION  
IN 21<sup>ST</sup> CENTURY EUROPE



European Research Council  
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GLOBAL HUMAN CAPITAL

# Fertility ups and downs since 1990

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## Three distinct period trends in European fertility after 1990

- The 1990s: Fertility declines to record-low levels in most countries.
  - Especially rapid in Southern and Central & Eastern Europe
- 2000s: Fertility reversal, increasing period TFRs
- After 2008: Stable or declining fertility after the onset of the recession

## Shift towards later childbearing

## Worries about too low birth rates, diverse policy responses

Jacques Chirac (1984): “Europe faces a “demographic slump. (...) In demographic term, Europe is vanishing. Twenty years or so from now, our countries will be empty (...)” (Teitelbaum, 2000).

Pritchett and Viarengo (2012: 55): Large parts of Europe committing “gradual demographic suicide”

# Agenda

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- European fertility trends and reversals since 1990
- Shifts in fertility timing and adjusted period fertility
- Cohort fertility & parity patterns of family building
- Reproductive preferences
- Policies
- Future of fertility: expert views
- Conclusions

**Data:** Eurostat, HFD, national statistical offices, VID, own computations, surveys (GGS, FFS, EVS, other)

**Regions:** following main geographic, cultural, economic, welfare and demographic divisions

- *Western, Northern (Nordic), Southern Europe, “German-speaking” countries*

- *Central, South-eastern, Eastern Europe (EU regions in blue, except NO, ICE, CH)*

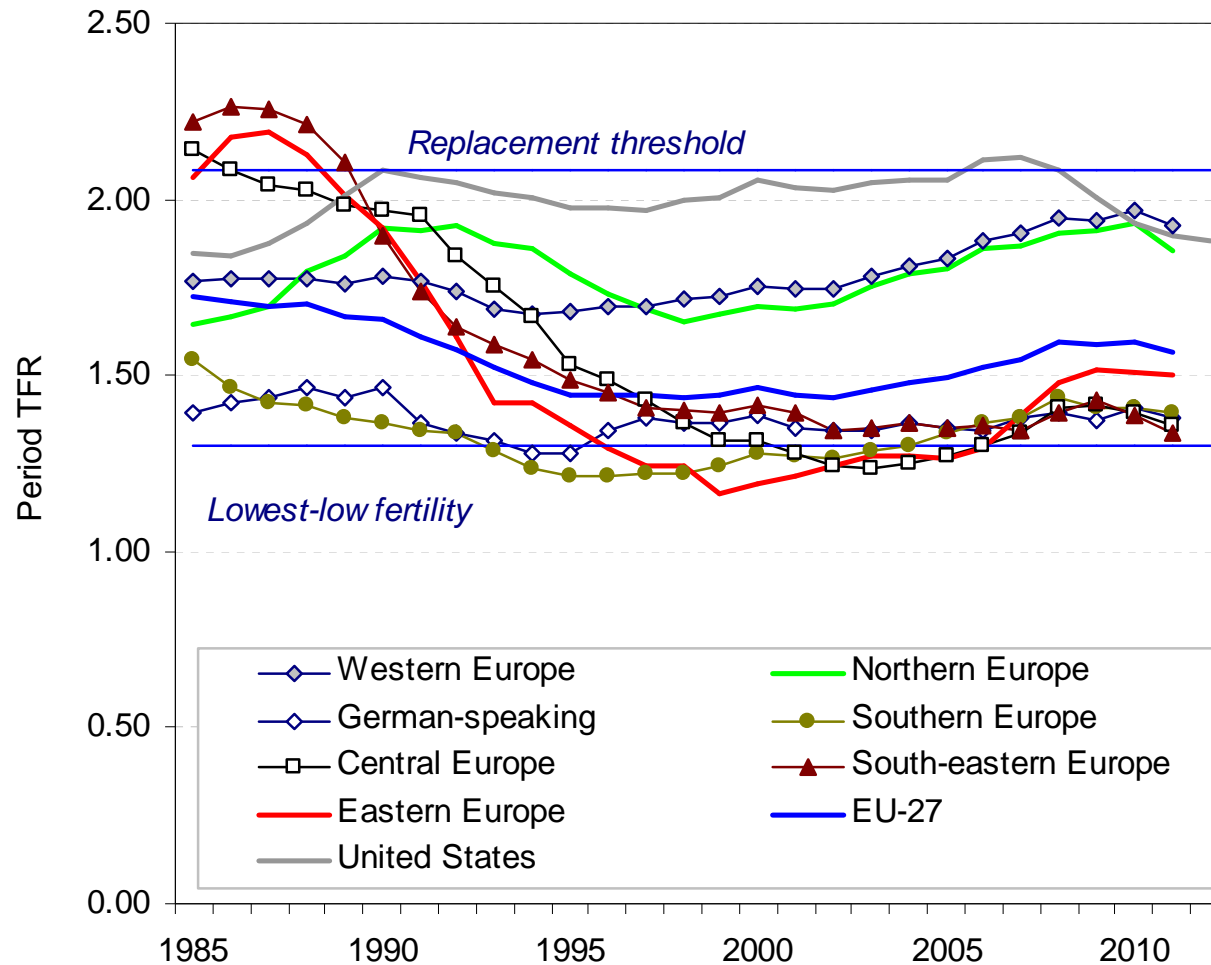
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# EUROPEAN FERTILITY TRENDS AND REVERSALS SINCE 1990

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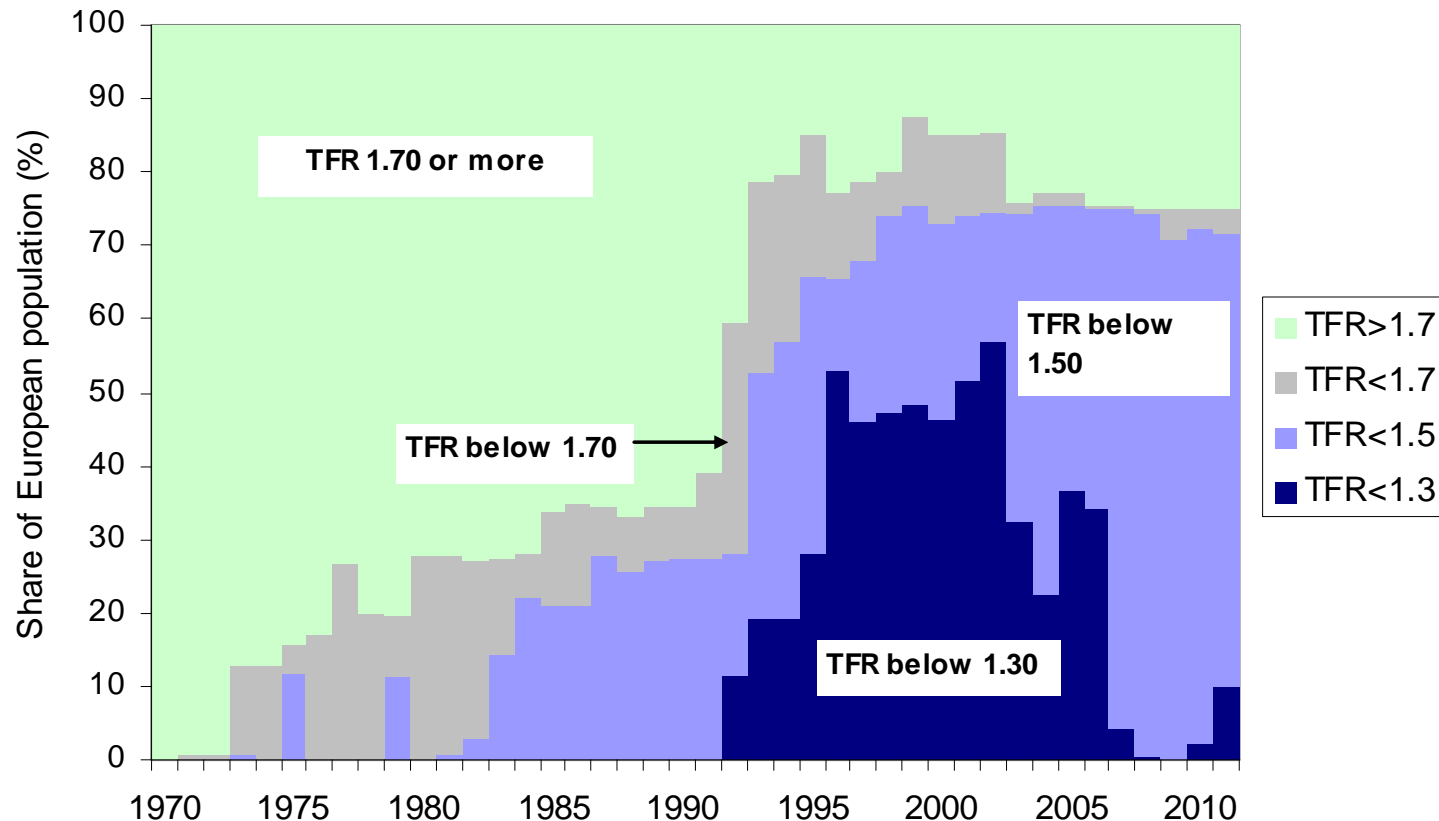
# Period fertility ups and downs

Period TFR in major regions of Europe and in the US, 1990-2011



# The spread, retreat and re-emergence of “lowest-low fertility”

Share of Europeans living in countries with a given period TFR level (%)



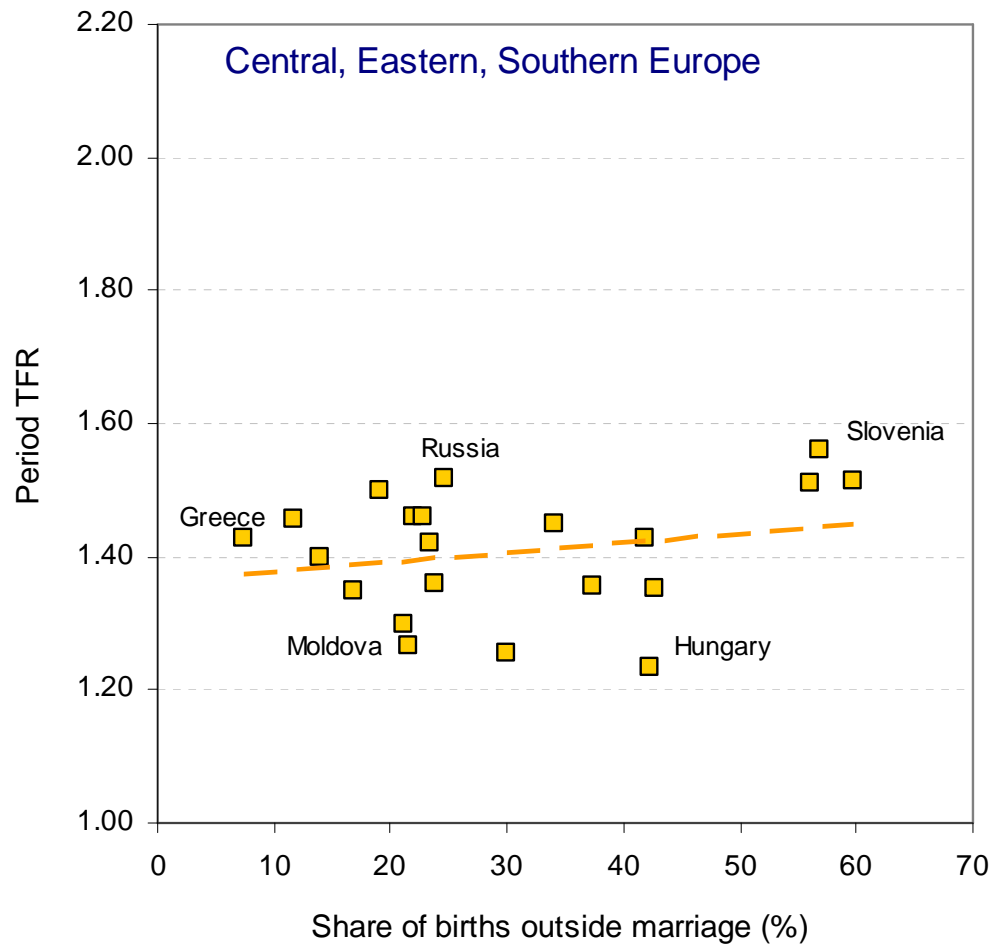
EU fertility increase: TFR 1.44 late 90s → 1.59 in 2008-9  
12 countries has a TFR rise > 0.3

# Rising fertility in the 2000s: context

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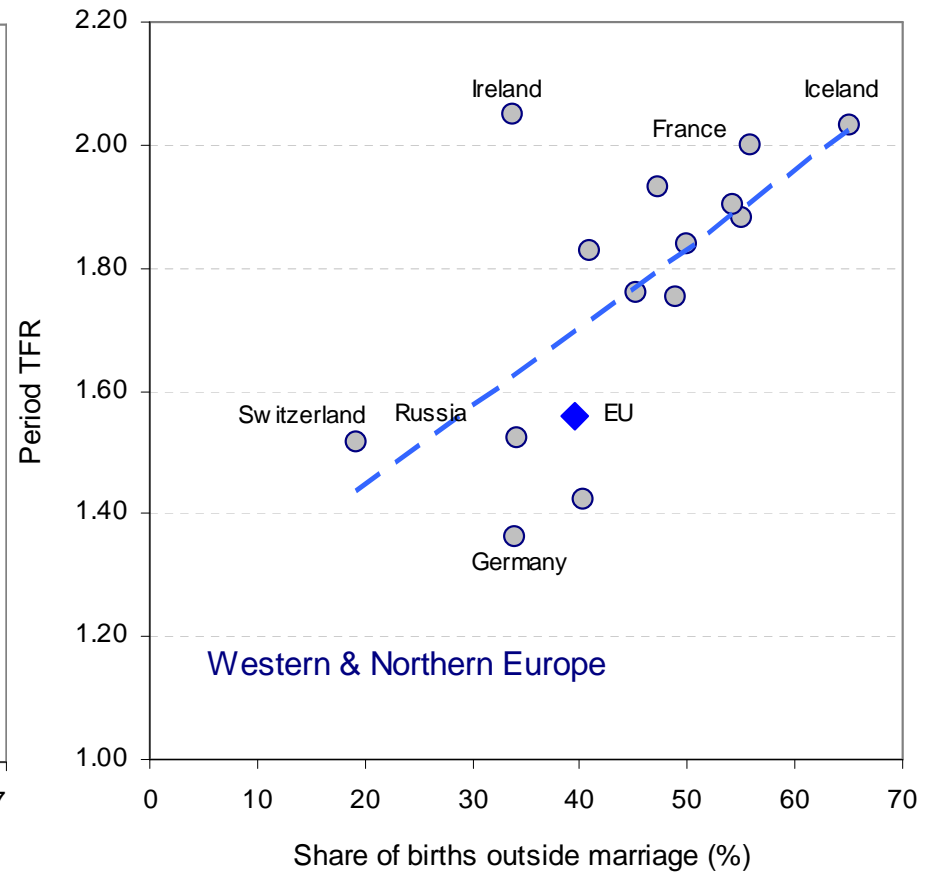
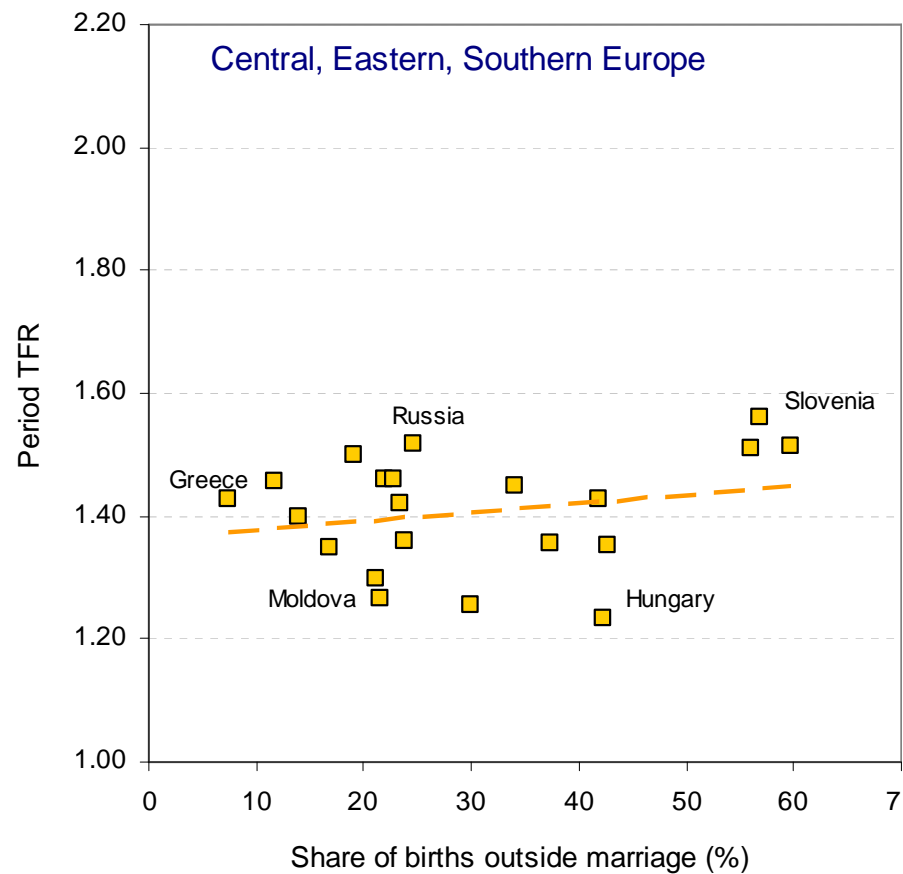
- Good economic conditions, recovery in the East
- Continuing expansion of university education
- Rise in women's employment: period fertility increased faster in countries with more rapid increase in women's participation
- Expanding family policies
- Long-term retreat of marriage, de-coupling of marriage and reproduction

# Non-marital childbearing and period TFR, 2011





# Non-marital childbearing and period TFR, 2011



# Selected emerging explanatory and theoretical frameworks, 1990s-2000s

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- *Tempo effects* (Bongaarts and Feeney 1998), *postponement transition* (Kohler, Billari, Ortega 2002)
- The '*low fertility trap*' (Lutz, Skirbekk and Testa 2006)
- The *gender equity* hypothesis (McDonald 2000, 2013)
- *Fertility reversals at advanced levels of development* (Myrskylä, Kohler & Billari 2009, 2011, OECD 2011, Luci and Thévenon 2011)
- *Pattern of disadvantage* (Pereli-Harris et al.)
- *Globalization, unemployment and economic uncertainty* (Blossfeld and Mills 2004; Adsera 2004)

## Other new surprising aggregate associations & findings:

- Period TFR positively associated with postmodern values (Sobotka 2008), happiness (Billari 2008), trust (Aassve, Billari, and Pessin 2011)

# Fertility ups and downs since 1990

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## Long-term shifts prior to the recession:

- Expanded education
- Longer partner search, less conventional living arrangements (+ reliable contraception)
- Higher tolerance of voluntary “childfree” lifestyle
- Rising labour market uncertainty, high youth unemployment, unstable jobs (especially for lower-educated & in Southern Europe)
- Mills & Blossfeld (2004): young adults ‘losers’ of globalisation process
- Vanhuyse (2013) *and others*: social spending unequally distributed, “pro-elderly bias”; rise of “gerontocracy” (Berry 2012)

→ *Delayed family formation, in some countries (very) extended stay in parental home (Southern Europe, CEE)*

# The economic recession 2008+

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## Main pathways how the recession affected partnership formation and fertility

- Unemployment, employment instability: loss of resources, inability to accumulate resources, uncertainty about future, inability to make binding long-term decisions (“*wasted generation*”)
- “Frozen” housing market, construction & mortgage lending
- Government cuts often affect especially the young
- EU-27: 13% young adults NEETs; close to 20% in IT (European Foundation 2011)

*The working-age poor are being pinched by a cap on welfare payments. Wealthy parents have been stripped of child benefit. University tuition fees have rocketed. Everyone is paying more VAT. But austerity seems much less austere if you are old. Pensioners, who fared notably well in the boom years, have been coddled in the bust.*

*Economist on elderly Britons, 16 February 2013*

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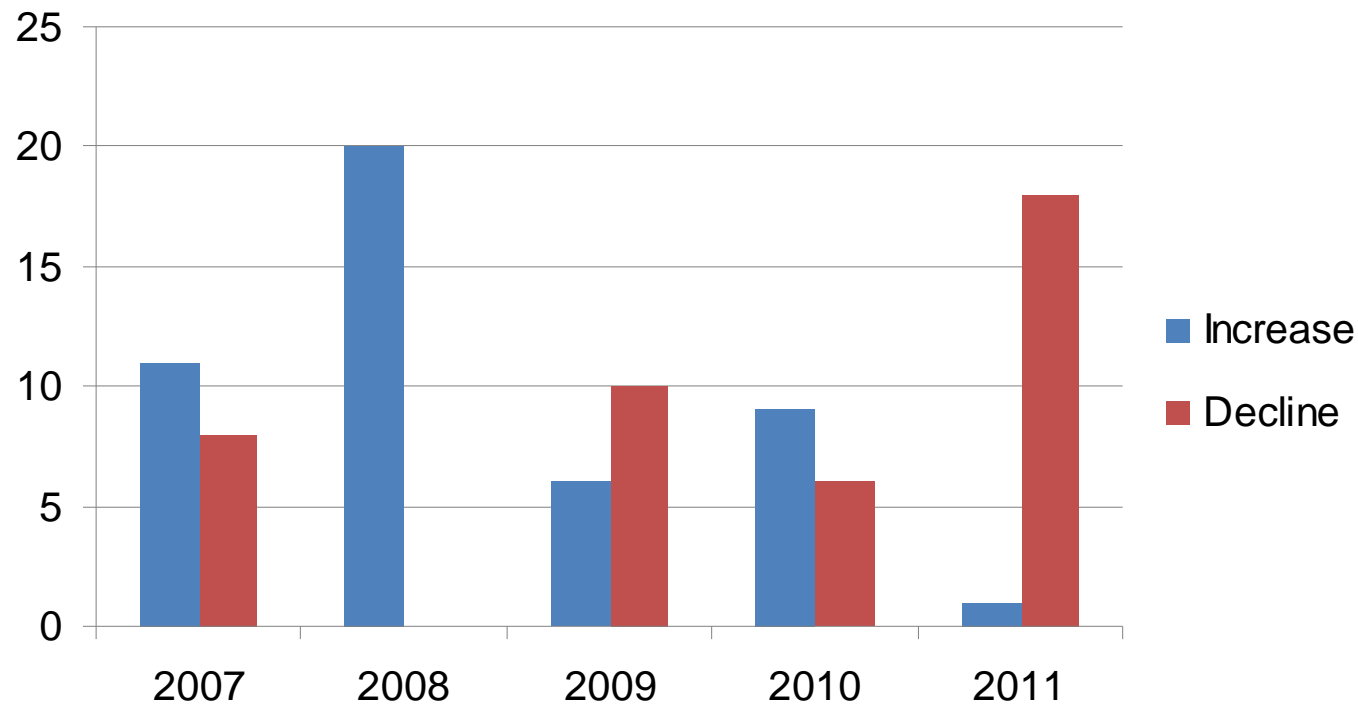
# FERTILITY DURING THE RECENT ECONOMIC RECESSION

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# Fertility increase prior to 2008 has reversed

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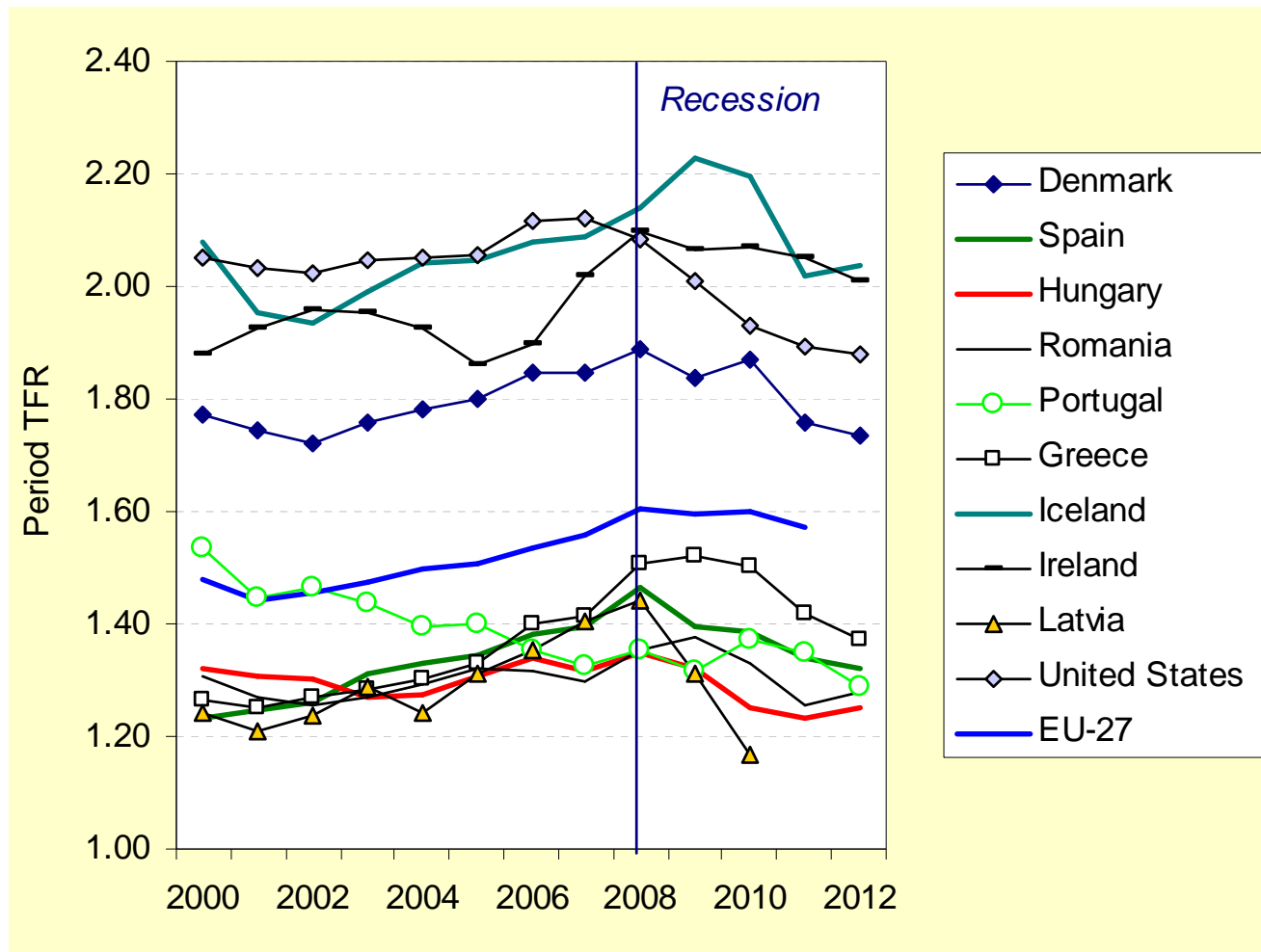
Number of countries experiencing an increase ( $>0.01$ ) or decline ( $<-0.01$ ) in period fertility rates, EU, 22 countries without time series break in 2011



Countries excluded: Latvia, Bulgaria, Lithuania, UK, Slovakia

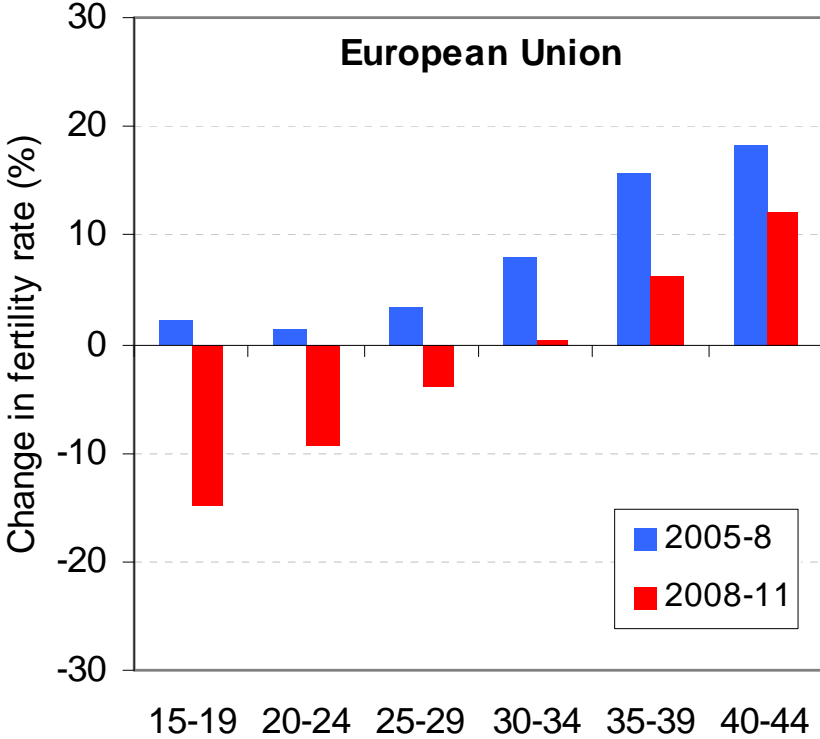
# TFR trends during the recession: most affected countries

Period TFR in selected countries in Europe and the United States, 2000-2011(12)



# TFR trends during the recession: falling early fertility

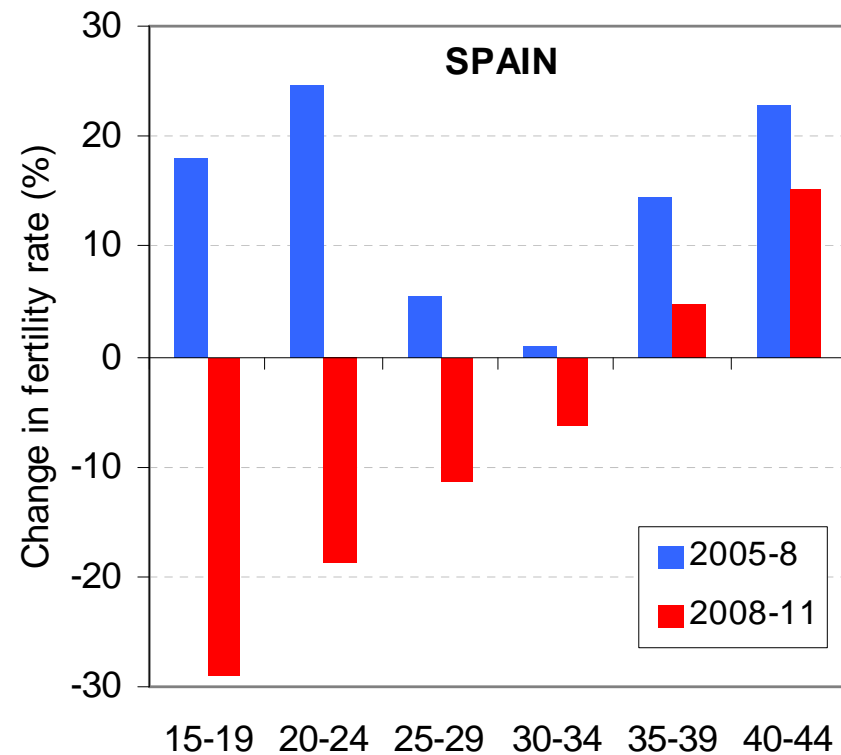
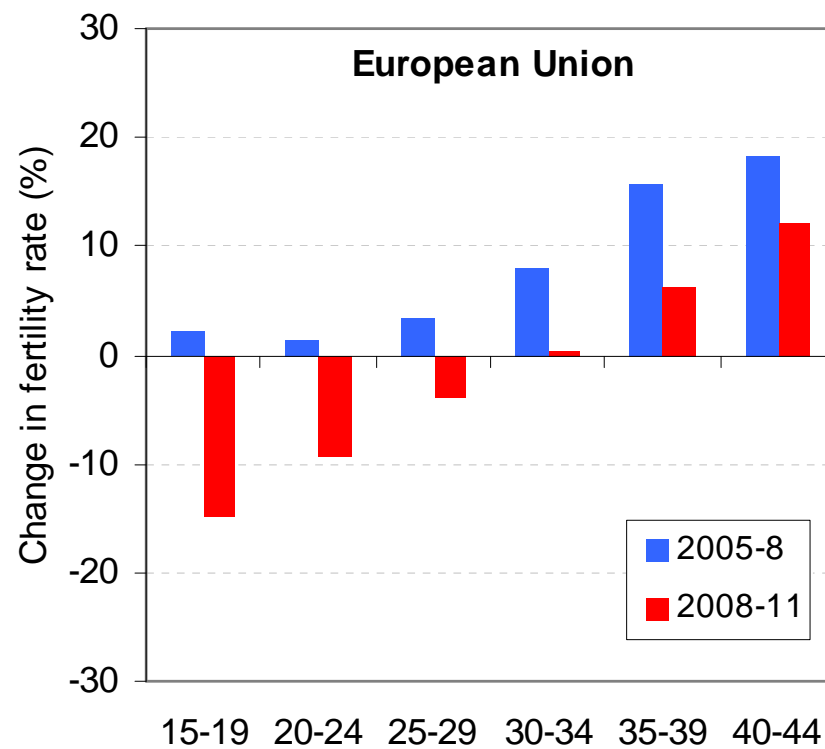
Changes in age-specific fertility three years before (2005-8) and three years into the recession (2008-11)





# TFR trends during the recession: falling early fertility

Changes in age-specific fertility three years before (2005-8) and three years into the recession (2008-11)



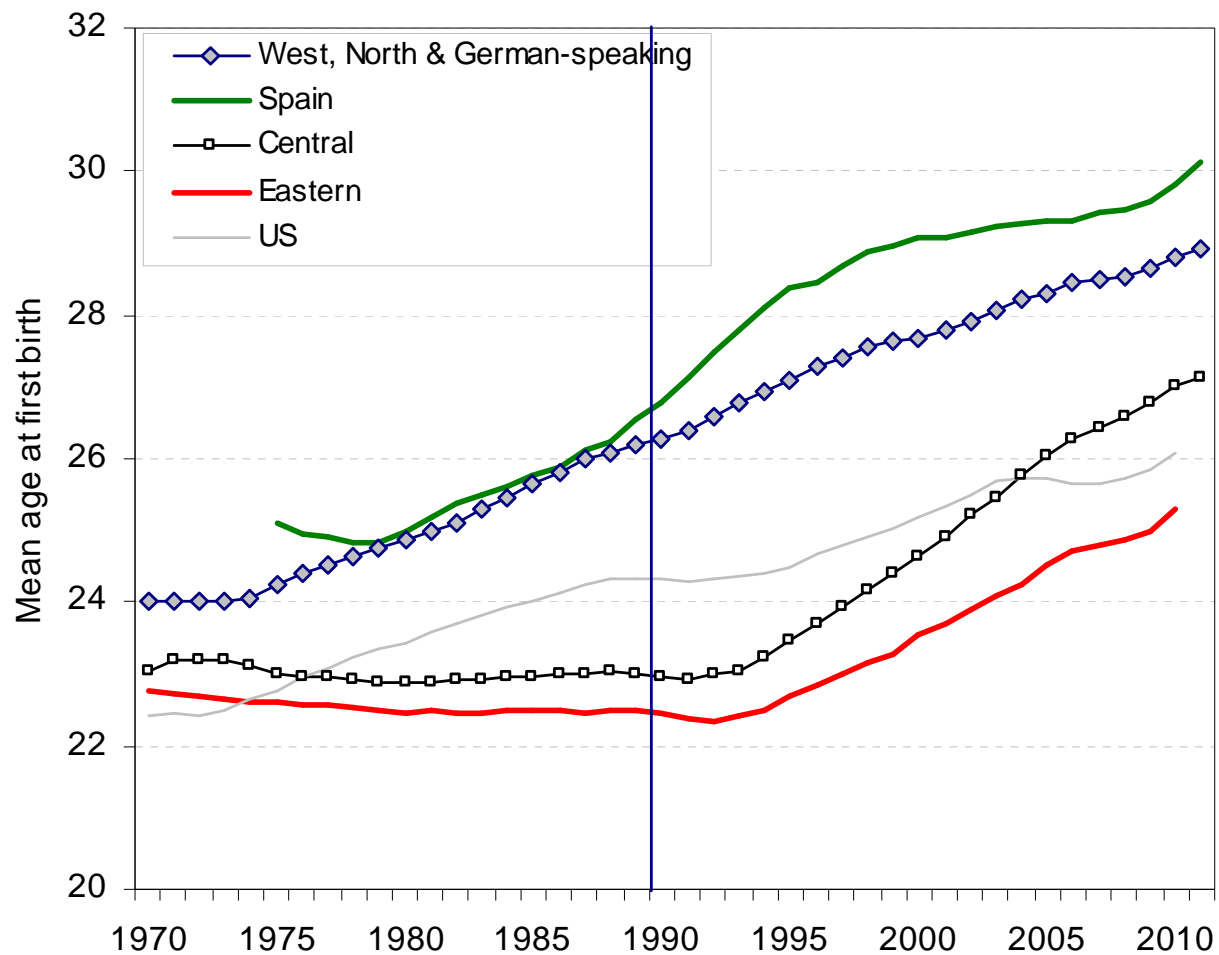
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# SHIFTS IN FERTILITY TIMING AND ADJUSTED PERIOD FERTILITY

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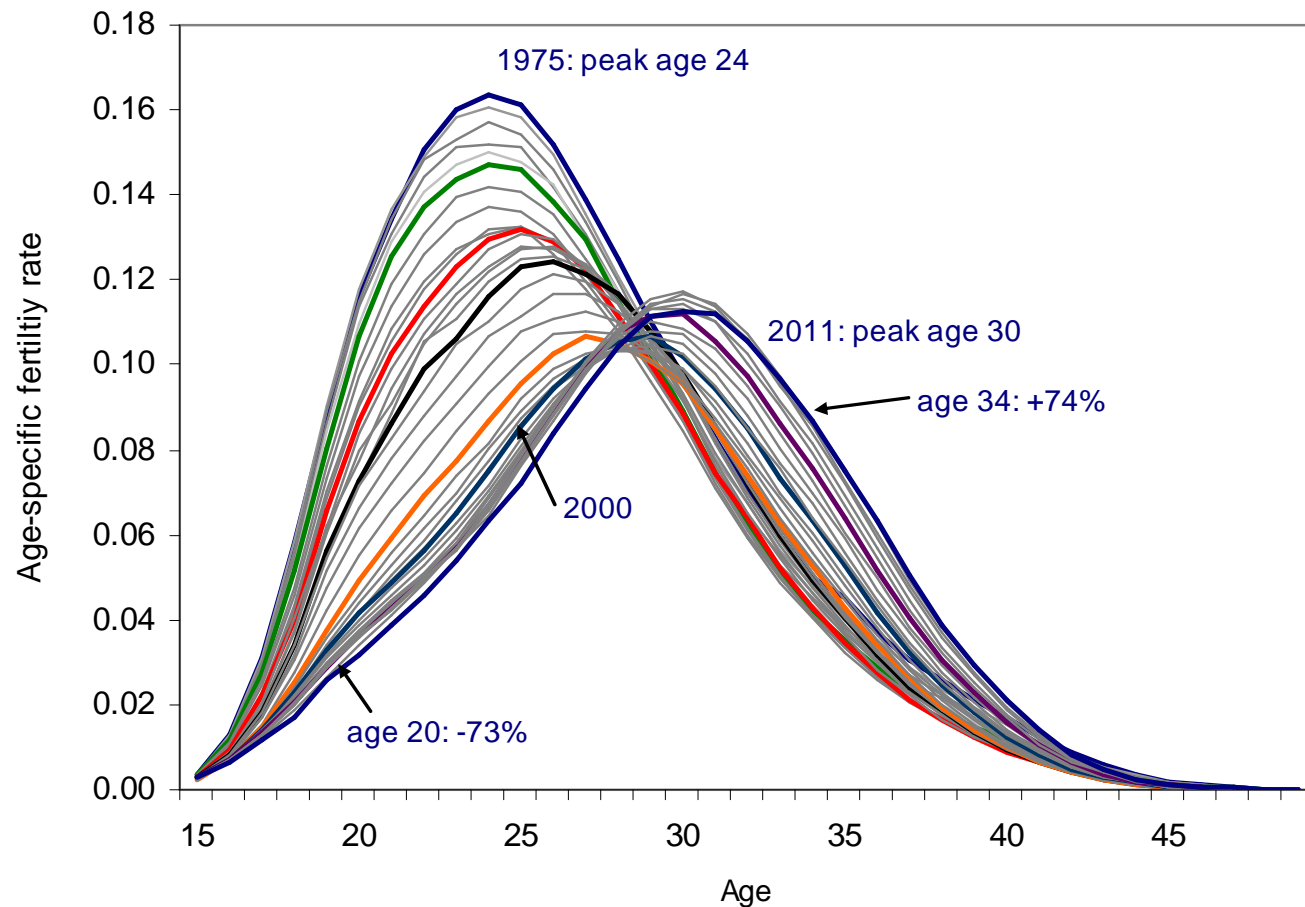
# Long-term shift towards later parenthood: European convergence

Mean age at first birth, selected countries and regions of Europe and the United States, 1970-2011



# Long-term shift towards later parenthood: EU age profile

Average profile of age-specific fertility rates in 11 European countries, 1975-2011

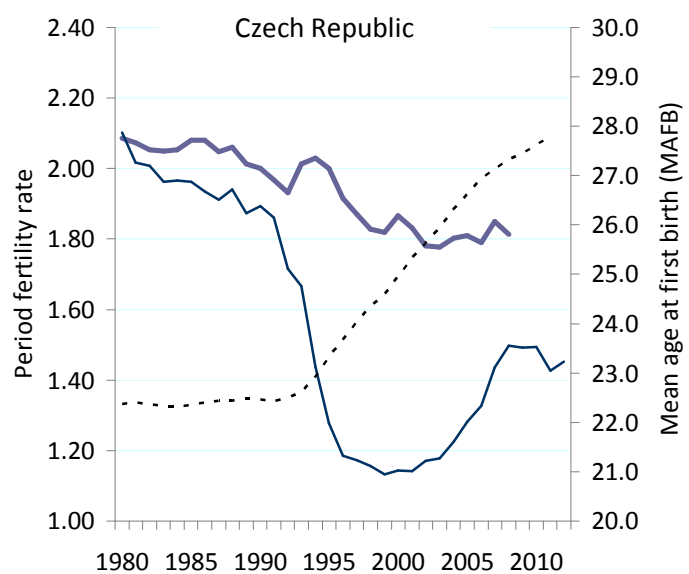
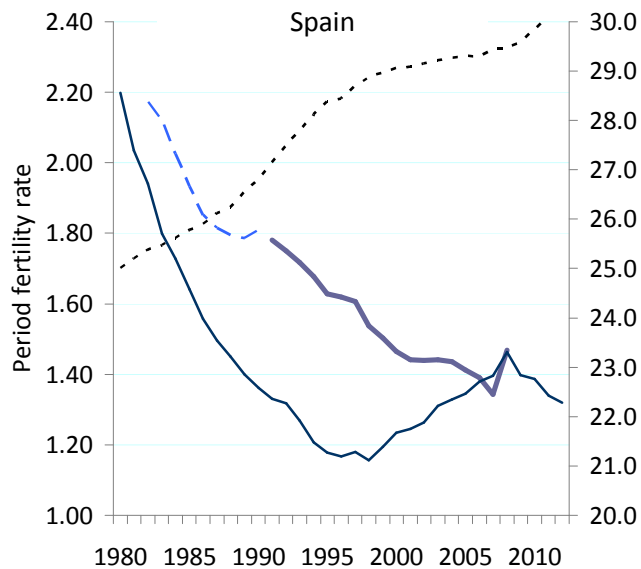
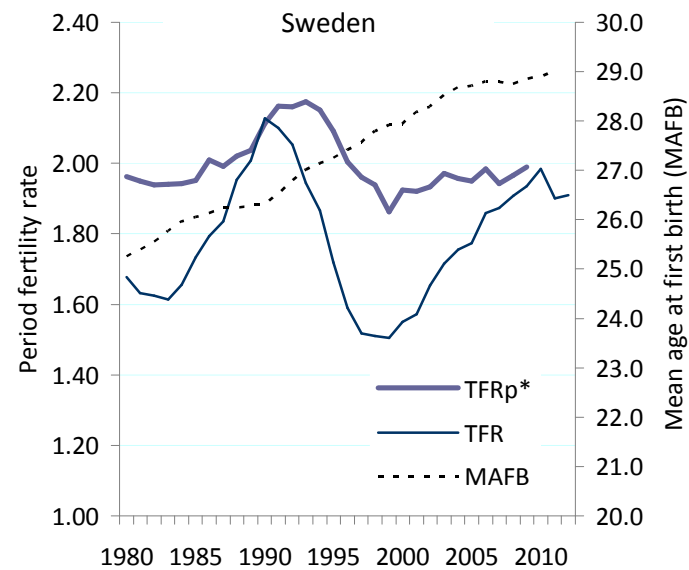
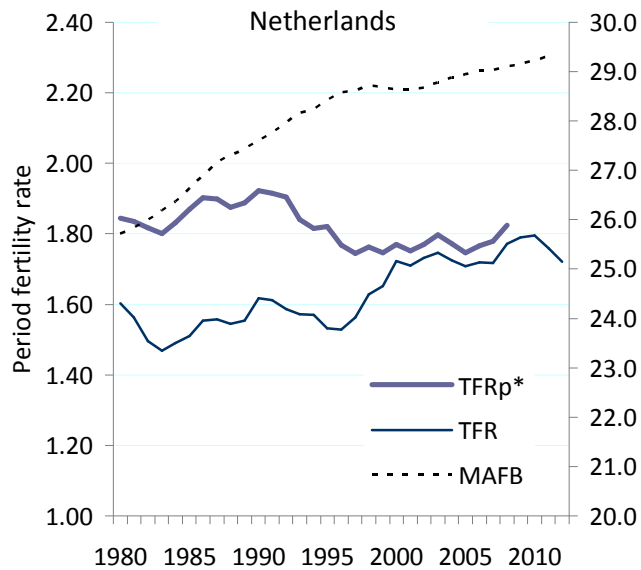


# Tempo effect in period fertility: illustrations

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- Tempo effect has emerged as the most important factor explaining short-term shifts in period TFR in Europe and much of the ups and downs of 1990s-2000s
- Also “lowest-low fertility” explained by tempo effect combined with relatively low fertility levels (Sobotka 2004, Goldstein et al. 2009)
- Overall ranking of European regions by their fertility does not change when tempo-adjusted indicators are used instead of

# Tempo- and parity-adjusted period fertility, TFRp\* (Bongaarts and Feeney 2006; Bongaarts and Sobotka 2012)



Bongaarts, J and T. Sobotka. 2012. "A demographic explanation for the recent rise in European fertility." *Pop Dev. Rev.* 38(1): 83-120.

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# COHORT FERTILITY & PARITY PATTERNS OF FAMILY BUILDING

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# Cohort fertility trends and variation

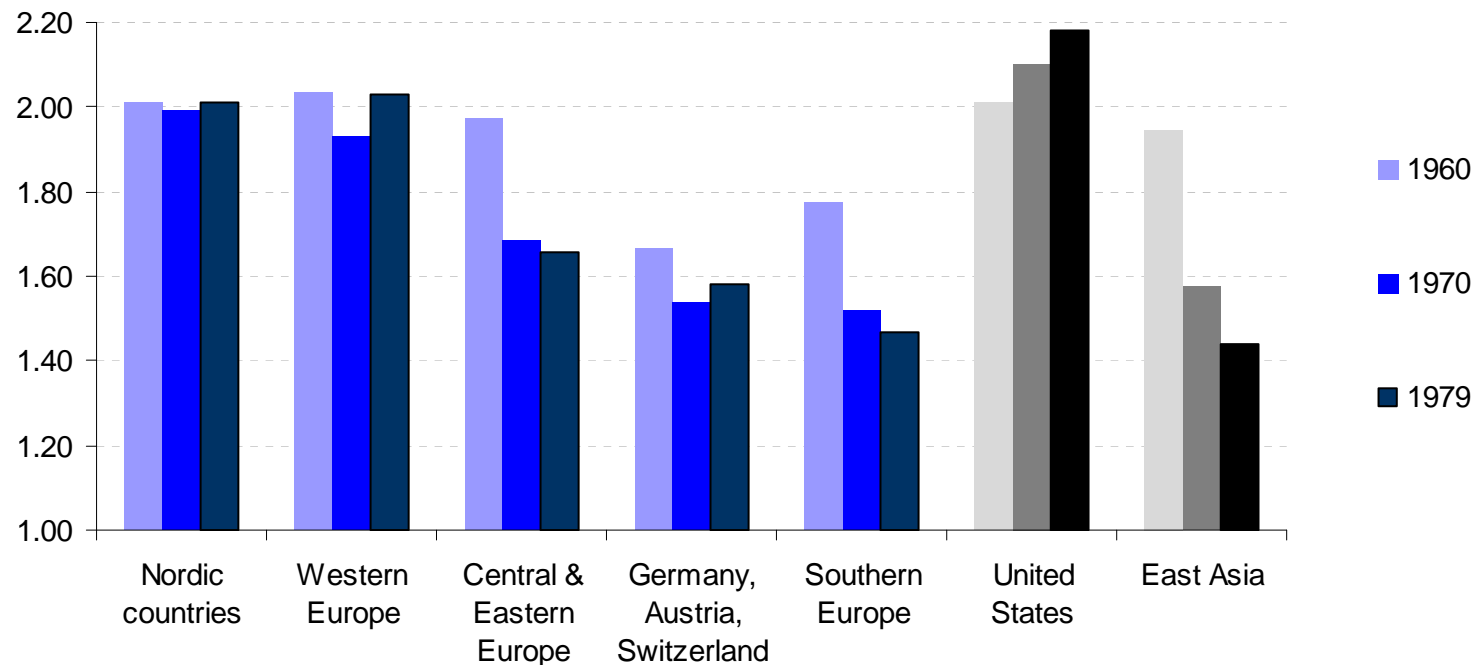
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- Considerably higher completed fertility (CTFR) than the period TFR
- Stabilisation & slight increases projected in the 1970s cohort (Myrskylä et al. 2013, Prioux et al. 2013)
- Earlier cohort fertility decline in Europe overshadowed by falling family size in East Asia
- Expected European CTFR range, 1975 cohort: 1.4 in Spain, 1.46 in Italy vs. 2.1 in Ireland, 2.04 in Norway and 2.02 in France



# Cohort fertility trends and variation

Observed and projected completed cohort fertility in selected regions in Europe, East Asia and in the United States, 1970-2012



Myrskylä, M., J. Goldstein, and Y. Alice Cheng. 2012. "New Cohort Fertility Forecasts for the Developed World: Rises, Falls, and Reversals." *Popul. Dev. Rev.* 39 (1): 31–56.

# Contrasting patterns of family building, selected countries

Number of children ever born, female birth cohorts ca. 1968

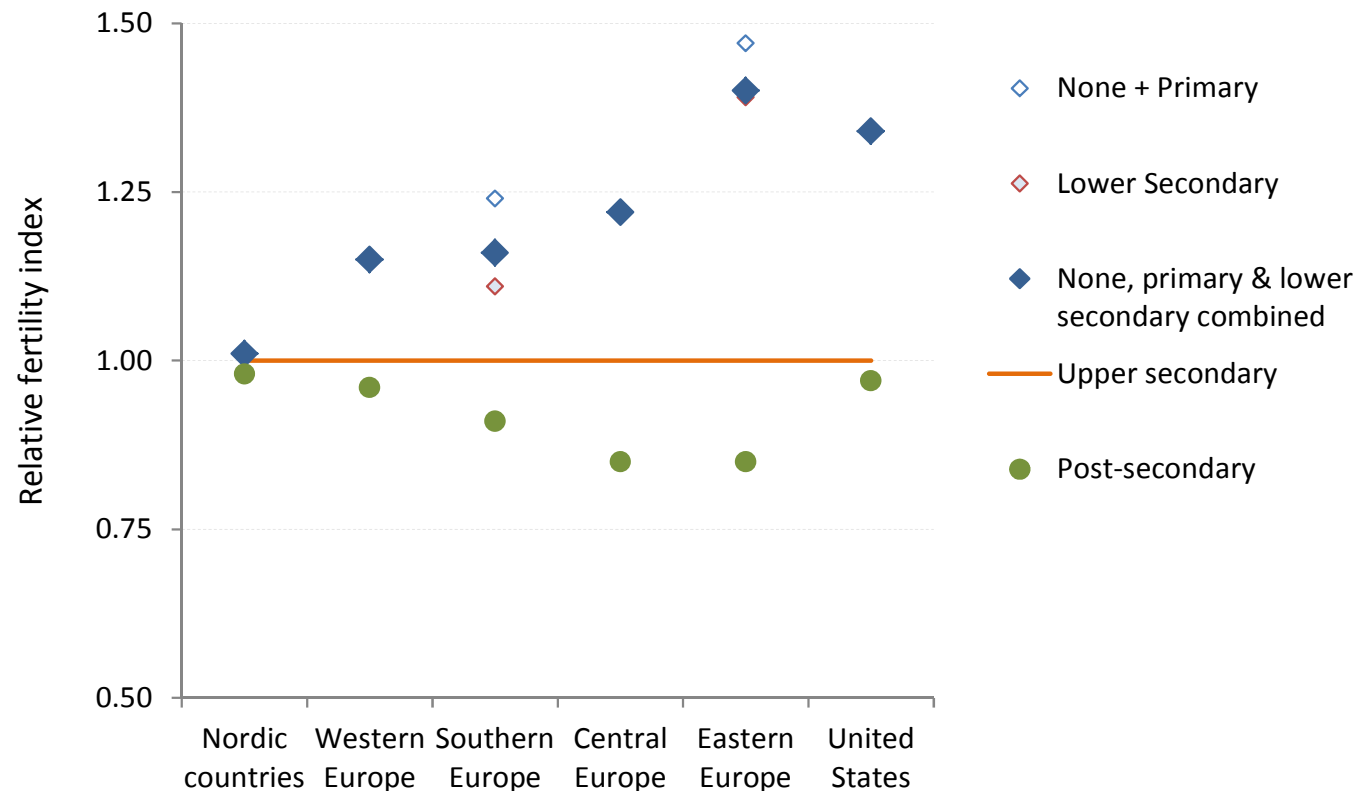
Completed fertility at 1.80 or higher	Country	Share of women with				CTFR
		No children	1 child	2 children	3+ children	
Higher, 2 or 3 children model	Norway	11.6	14.6	42.2	31.7	2.04
Higher, polarised	England & Wales	20	14	38	28	1.91
Higher, 2-child model, low childlessness	Czech Republic	7.9	19.5	53.6	19.0	1.89
<b>Completed fertility below 1.70</b>						
Low, 1-child model	Russia	7.9	40.2	39.4	12.5	1.62
Low, polarised	Austria	21.5	22.8	38.0	17.8	1.59
Low, few large families model	Spain	16.8	28.1	44.1	11.0	1.52

- no systematic difference in childlessness between the countries with higher and lower completed fertility

Data based on Human Fertility Database and ONS (for England and Wales).

# Education gradient in completed fertility by region,

Relative fertility index (RFI) by broad education category, women born around 1960 (RFI of women with upper secondary education = 1)



Data available for 23 countries; based on Census and survey data. Source: Basten, S., T. Sobotka and K. Zeman. 2013. "Future fertility in low fertility countries." VID Working Paper 5/2013, pp. 77, Table 6 and Appendix 6

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# REPRODUCTIVE PREFERENCES

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- joint work with Éva Beaujouan (VID)

# Fertility intentions and ideals in Europe

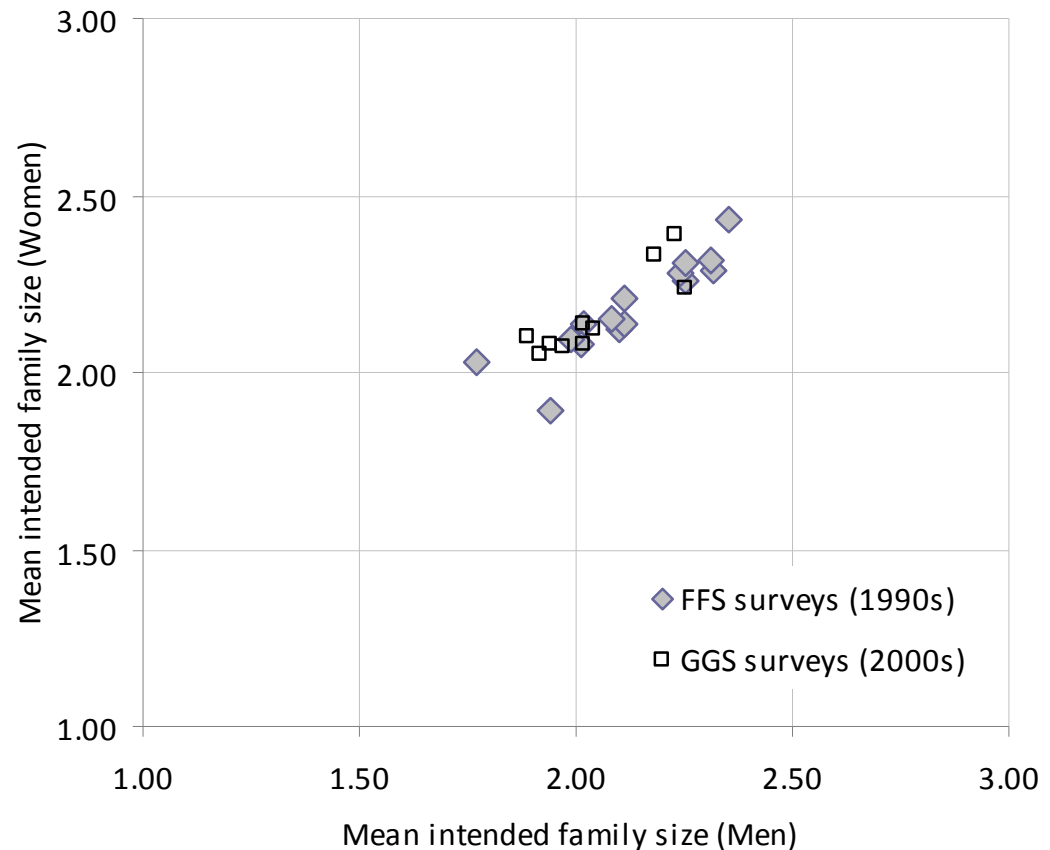
- Remarkable lack of variation, two-child family norm almost universal
- Also no systematic variation by social status, very little difference between men and women

Mean intended family size of men and women aged 25-29, selected European countries, 1990s (FFS survey) and 2000s (GGS survey)

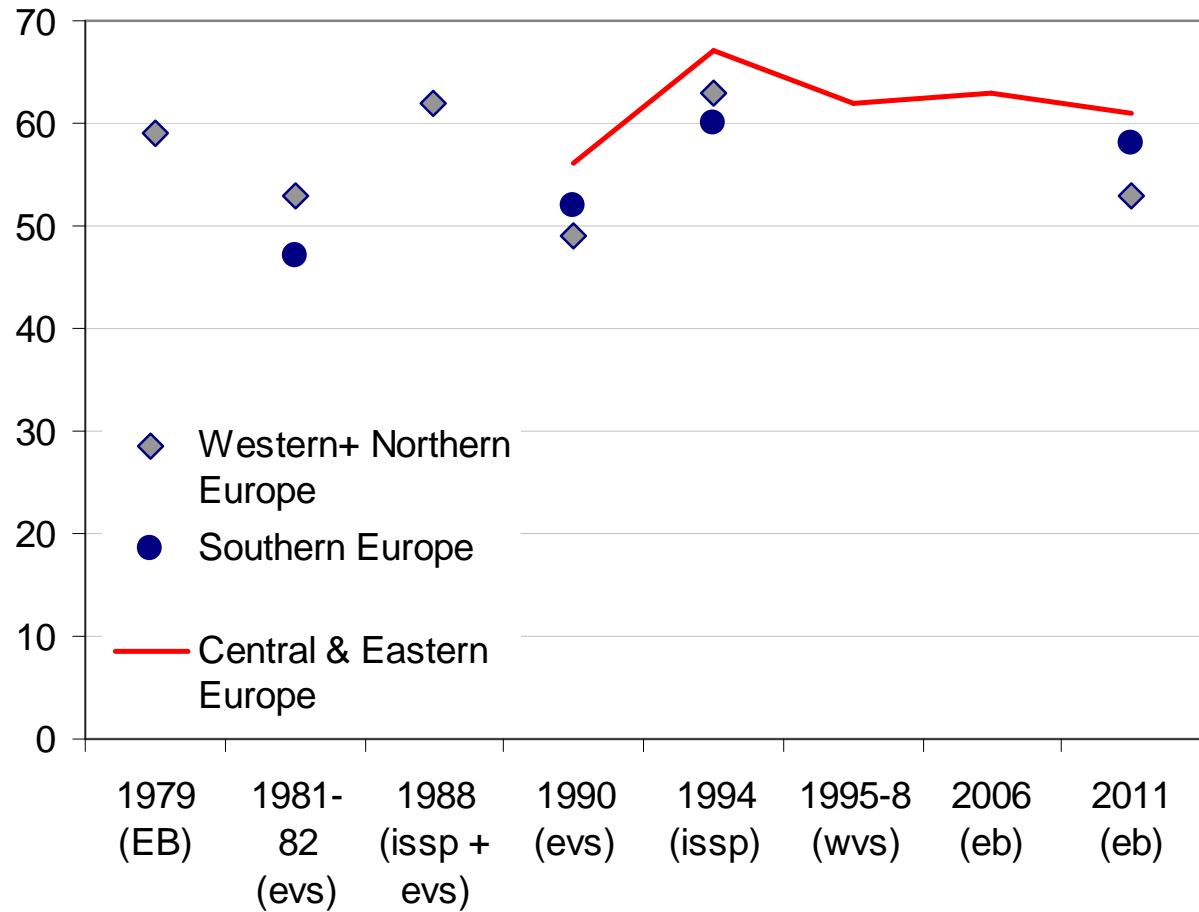
Mean, women

1990s (15 countries): 2.18

2000s (10 countries): 2.16

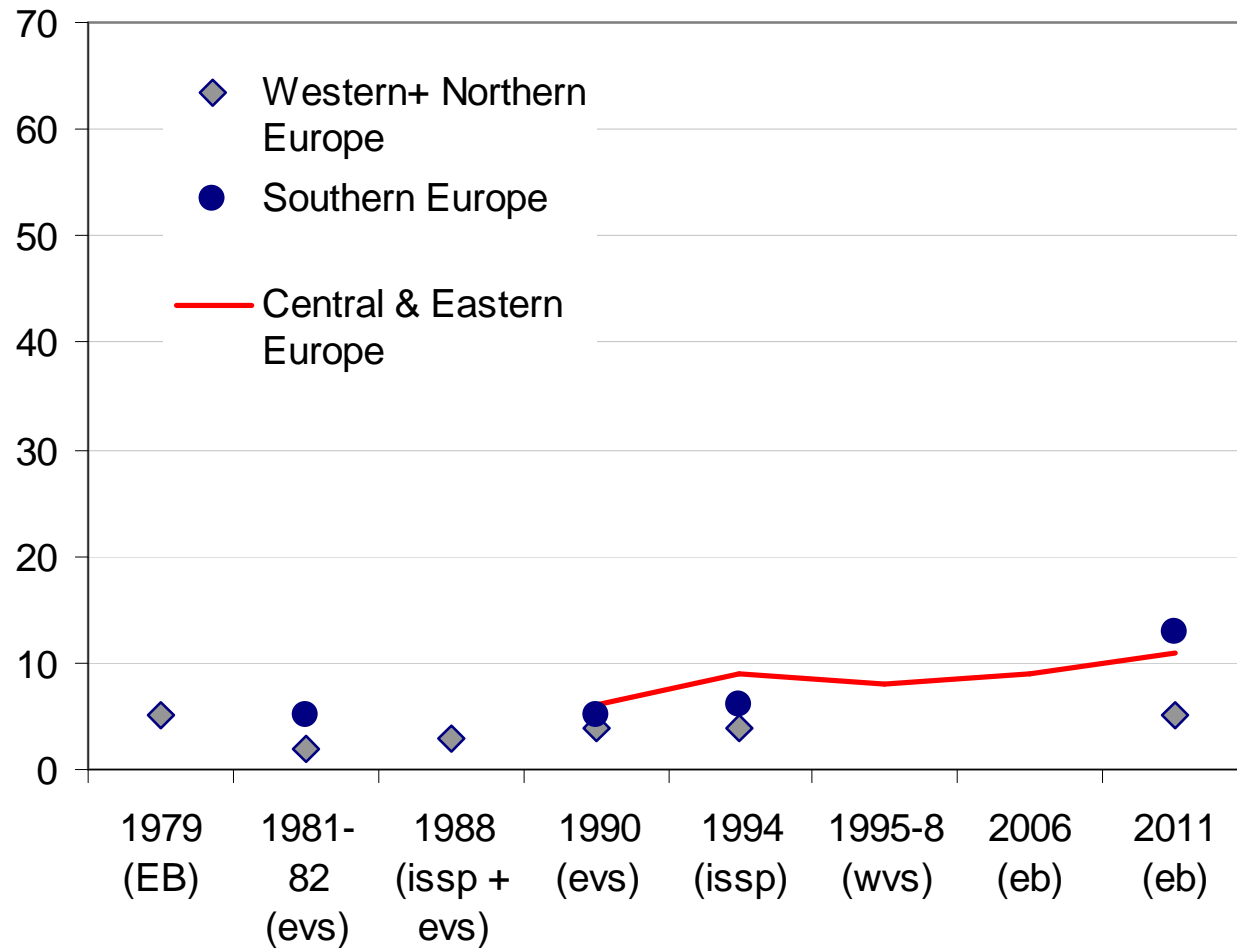


# Share of respondents with a two-child ideal (%) by region, different surveys 1979-2011



# Share of respondents with a one-child ideal (%) by region, different surveys 1979-2011

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# Fertility intentions and ideals in Europe

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- No strong evidence that mean ideal family size in some countries would fall well below 2 children as suggested earlier for Austria and Germany by Goldstein, Lutz and Testa (2003)

Hagewen & Morgan (2005: 12) on the US

*...“there is a remarkably pervasive desire (and supporting norms, structure, and biological predisposition) for two children when and if one can afford them and care for them”*



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# POLICIES

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# Family policy agenda in Europe

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1990s and 2000s: Strong interest of governments in family policies and potential effects of policies on birth rates

- Also clear from the regular UN survey on government views
- Increase spending in most OECD countries
- European Commission 2005: return to “demographic growth” one of three essential priorities
- EU: policies aiming to support combination of employment and family life and realisation of reproductive desires
  - Also promoting gender equality
  - Explicit policy goals (e.g., public childcare coverage for children below age 3)
- Eastern Europe: more explicitly pro-natalist policies, also linked to conservative agenda and nationalistic ideology

# Examples of family policy trends

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- **Shorter, but well-paid parental leave**, with remuneration up to 100% of the previous wage (Estonia, Germany, Poland). Also stimulating earlier return to employment
- **Expanding public childcare coverage** for children below age 3 (Germany, many EU countries)
- ***Multispeed* parental leave**: choice for parents of different durations and different levels of support attached to it (Czech Republic, Austria, Germany)
- **Flexible leave arrangements**: fathers and mothers can alternate (Norway)
- **Stronger involvement of fathers**, including extra parental leave for fathers only (Nordic countries, Germany, Austria)
- **Cash support to newborns** (*baby bonus, Spain 2007-10*), “maternity capital” established at the time of child’s birth (second births in Russia)

## Do policies matter for fertility?

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*Spending on families as a share of GDP does not correlate with fertility*

- but specific policies, especially in combination (“policy packages”), shown to have a positive effect on fertility in Europe
- also expanded spending on family policies positively correlated with fertility trends in the 2000s
- financial security (cash benefits) and childcare provision in the early stage seem to have the strongest effect on fertility
- important aspect of successful policies: stability and predictability

Based on:

Luci-Greulich A and O. Thévenon. 2013. “The impact of family policies on fertility trends in developed countries.” Forthcoming in *European Journal of Population*

OECD. 2011. *Doing better for families*. OECD Publishing, Paris

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# FUTURE OF FERTILITY: EXPERTS' VIEWS

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Basten, S., T. Sobotka and K. Zeman. 2013.  
“Future fertility in low fertility countries.” *VID  
Working Paper 5/2013*

# A global survey of population experts, 2011

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- Coordinated by the IIASA / Wittgenstein Centre for Population and Global Human Capital
- *Low Fertility Module*: 186 assessments for individual countries, of which 84 for Europe.
- **Focus** on future trends, uncertainty and main drivers of future trends through 2050
- **Main conclusion**: low fertility is here to stay, UN projection model may be too “optimistic” in the envisioned scope of future fertility increases

# Main quantitative results for Europe: selected countries

Country	N (N giving 80% CI shown in brackets)	TFR 2010 <sup>2)</sup>	TFR 2050			
			Experts: mean	Experts: 80% CI: min-max <sup>3)</sup>	UN WPP 2010 main: medium	UN WPP 2012
Germany	9 (4)	1.39	1.58	1.23-2.06	1.89	1.66
Sweden	7 (6)	1.99	1.89	1.47-2.23	2.04	1.99
United Kingdom	4 (4)	1.98	1.92	1.31-2.65	2.02	1.90
Italy	12 (7)	1.40	1.57	1.30-1.92	1.89	1.80
Spain	6 (4)	1.39	1.68	1.34-2.12	1.90	1.81
Russia	4 (2)	1.54	1.48	..	1.91	1.83
<b>EUROPE<sup>1)</sup> (18 countries)</b>	<b>84 (58)</b>	<b>1.56</b>	<b>1.62</b>	<b>1.25-2.14</b>	<b>1.91</b>	<b>1.80</b>
United States	22 (19)	1.93	1.83	1.38-2.30	2.09	1.99
<b>All low fertility countries<sup>1)</sup></b>	<b>31 countries</b>	<b>1.64</b>	<b>1.57</b>	<b>1.07-2.13</b>	<b>1.84</b>	<b>1.81</b>

# Selected qualitative highlights

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## Key factors expected to impact future fertility

### Negatively:

- Economic & employment uncertainty, job instability, pressure from employers (all regions)
- More years in education (Nordic)
- Difficulties finding a partner (Central Europe)
- Retrenchment of family support (Eastern Europe)

### Positively:

- Immigration from higher-fertility countries (Western, Northern, Southern E.)
- Assisted reproduction allowing late childbearing (Western, Central E.)
- More equal gender division of household roles (Northern and Southern E.)
- Expanded provision of early childcare (German-speaking, Central Europe)
- More flexible work practices, housing support (Eastern Europe)



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# CONCLUDING DISCUSSION

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# Selected messages

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## Wider relevance of European experience

- Fertility decline does not magically stop at 2.1
- Diversity of post-transitional experiences
- Universal tempo transition?

## Measurement

- At low fertility level need for finer measurement
- Tempo transition: period TFR does not tell the whole story: exaggerates the pace & level of fertility decline
- More focus on cohort fertility

# Is low fertility a symptom of European-wide demographic crisis?

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No! The issue is often portrayed too dramatically

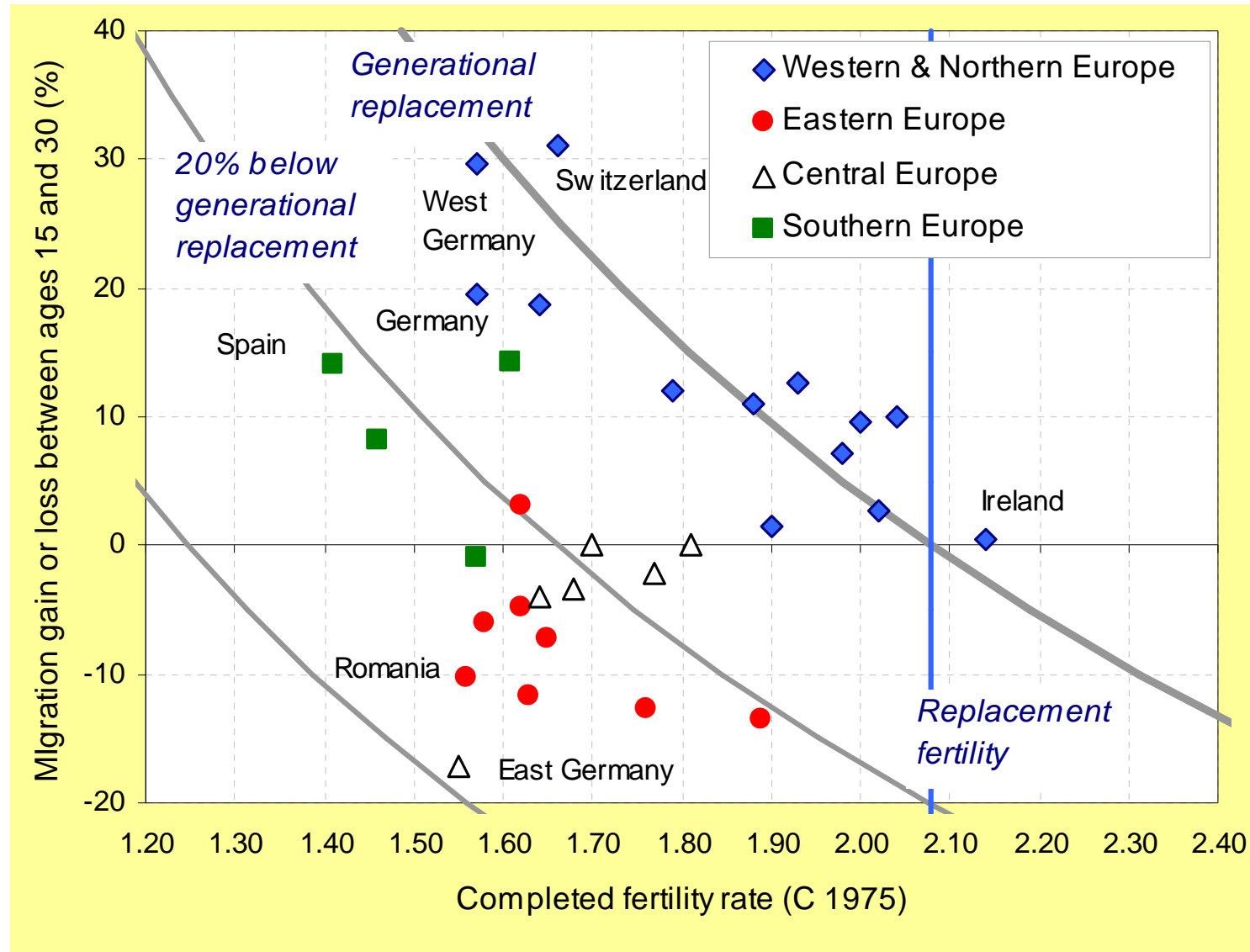
- Different levels of cohort fertility combined with different migration regimes
- Low fertility in most of Europe “overshadowed” by East Asia
- Real problems with long-term depopulation: parts of Eastern and South-eastern Europe

Where period and cohort fertility likely to be the lowest

**Southern Europe:** recession effects, incomplete gender revolution, little progress in policies supporting work-family combination, spread of 0+1 child families

**Eastern & South-eastern Europe:** traditional gender norms persist, still “excess” unintended fertility and huge social status differentials, postponement transition under way, spread of 1-child family model

# A combined view of cohort fertility and migration (ages 15-30): women born in 1975

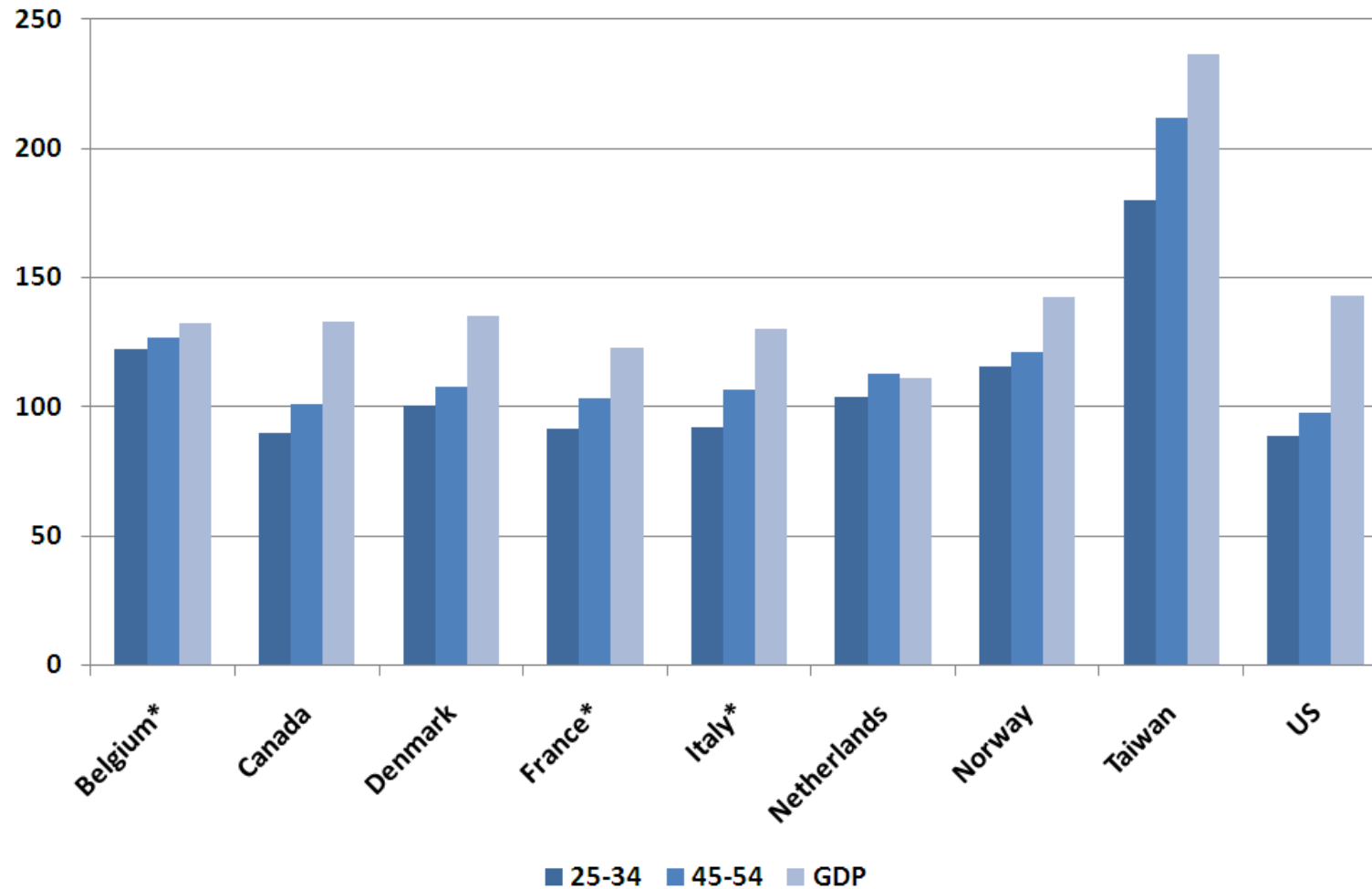


# The need to support people in pre-family formation stage

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- The “long-arm” of the recent recession in some countries: the “lost generation” in the South, increased poverty → likely lasting effect on cohort fertility and childlessness
- Vanhuysse (2013) *and others*: social spending unequally distributed, “pro-elderly bias”; rise of “gerontocracy” (Berry 2012)

## Change in real wages and GDP per worker in 1980s – early 2000s [rescaled to 100 – in 1980s]



Source: Skirbekk-Stonawski-Sanderson (2010): *No country for young men*. Computations based on Luxembourg Income Study

# Open issues

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- Future convergence in social status differentials: *reduction from the bottom or increase at the top?*
- Will most men embrace gender equality at the end? And will it be good for fertility?
- Will the “traditionalists” and the religious boost fertility? (Israel, US)
- The effects of partnership instability

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