

The likely future increase of fertility in Europe

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BACKGROUND

- Despite recent rise, period fertility 'low' in most European countries
- Since the 1920s: theories and hypotheses envisioning long-term low or very low fertility; fears of population decline

[Frejka & Sardon \(2004\)](#): completed TFR of 1.2-1.3 in Italy, Austria, Germany, Switzerland among women born in 1975

[Pope Benedict XVI \(2006\)](#): Europe “*no longer wants to have children*”

[David S. Reher \(2007\)](#): Extremely low fertility “has been around for too long”...

Major and in general non-reversible trend?

Is fertility bound to decline to very low levels?

Newsholm (1906): “The Decline of Human Fertility ...”

“Social suicide:” Declining birth rates due to rising standard of comfort and the “determination to secure greater comfort”

➤ Increased education, lowering ideal of married life

“The outlook is gloomy.” ... “Within decades, other countries will follow.”

Davis (1937): “Reprod. institutions and the pressure for population”

The slow but unstoppable destruction of the family in the West

➤ **Traditional society:** family an “almost complete organization of life”; familistic systems “motivate persons to bear and rear children”

➤ **Modern society:** an “all-embracing encroachment upon the familial type of reproductive unit” (urbanism, industrialism, social mobility)

Family not indefinitely adaptable, hence declining birth rates

Is fertility bound to decline to very low levels?

Lesthaeghe (1983): “A century of demographic and cultural change in Western Europe”

A “fundamental transition” in family and fertility patterns

- Centrality of individual goal-attainment
- Secular individualism, preoccupation with self-fulfilment
- Female emancipation

“...*two children constitute almost a culturally established maximum beyond which suspicion of contraceptive failure emerges*”

Contemporary research: Why fertility low or falling?

Lesthaeghe & van de Kaa: *The Second Demographic Transition*

McDonald (2001, etc.): *Gender (in)equity*

Lutz-Skirbekk-Testa (2006): *Low fertility trap*

- No “natural law” that would stop fertility from falling further, should preferences and norms change accordingly

Voas (2003): *Conflicting preferences of partners*

Davis (1937), Chesnais (2001), McDonald (2002), Caldwell-Schindlmayr (2003), Reher (2007)...

- women’s emancipation, liberal democracy and consumerist culture

Mills & Blossfeld (2004): *Rising economic uncertainty of the young*

What do these theories imply?

A STYLISTED SUMMARY OF KEY ARGUMENTS

- The (first) demographic transition sowed the seeds of very low fertility (van Bavel 2009 reporting on pre-WW2 studies)
- Fertility more likely to fall than increase as traditional family forms and values decline on importance
- Reversing falling or very low fertility rates difficult if not impossible
- Fertility likely to be 'too low', whatever criteria used (most often, 'replacement level of the population' benchmark)
- The upper ceiling of the mean number of children is 2, the lower floor is not clearly established (might be 0?)

AGENDA

- *Is long-term (very) low fertility indeed inevitable in Europe?*
- *Could also cohort fertility be reversed?*

THE NEXT 40 YEARS: REASONS WHY FERTILITY MAY RISE

- Institutional change
- Compositional change in population
- Changes in the effects of socio-economic & cultural factors
- Technology
- Conclusions: The future higher fertility in Europe?

Argumentative & partly subjective: ignoring low-fertility factors; little empirics

The significance of recent period fertility increase

- A minor baby boom in Europe & English-speaking overseas countries

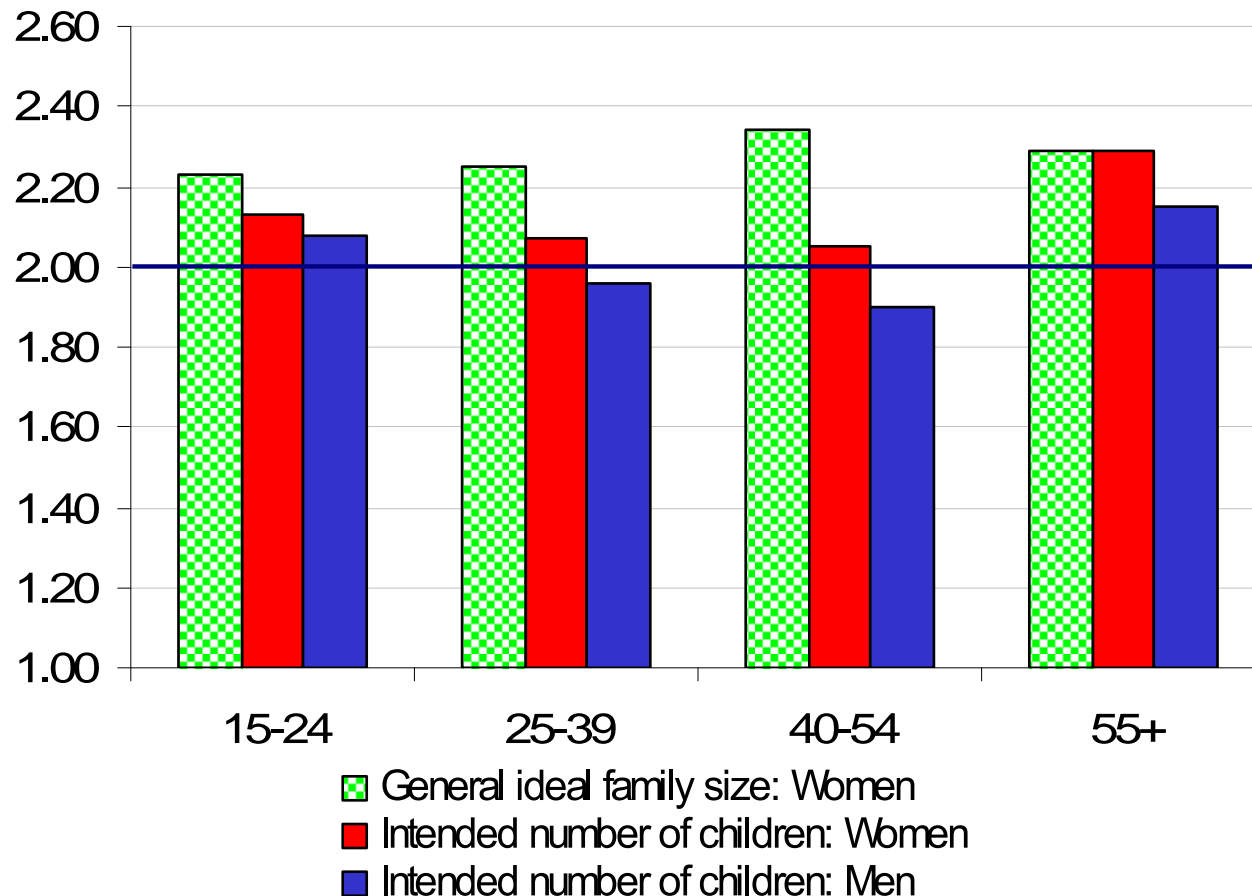
Not entirely unexpected, but:

- Strong TFR rise in some cases (SWE, UK, FR...)
- Return of around-replacement-level TFR (UK, FR, IRE, Nordic countries, US, NZ, Australia)
- Slowing cohort fertility decline, stabilisation at younger ages (Frejka & Sardon 2009)

A short-term shift due to slowing postponement?

Babies still valued everywhere: Intentions and ideals in Europe in 2006

Liefbroer-Fokkema (2008) and contributions in Frejka et al. (2008):
Parenthood and family life almost universally valued across Europe



EUROBAROMETER
2006:

Intended family size
still remarkably close
to two

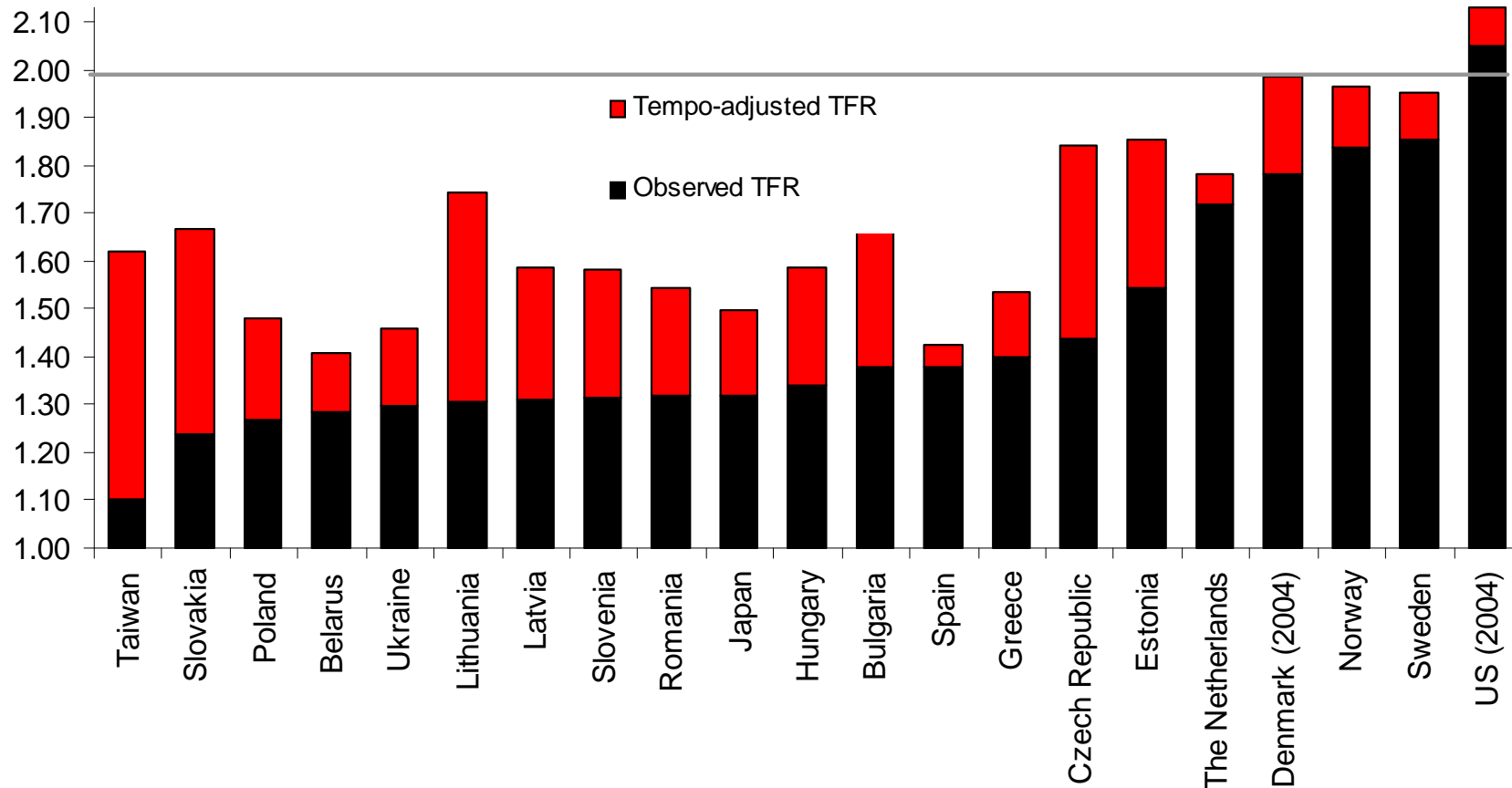
(data for EU-25
adopted from Testa
2006)

Morgan and Hagewen (2005) about the U.S.:

Evidence on the pervasiveness of a desire for two children „*when and if one can afford them and care for them*“

Period fertility rates: An envisioned end of tempo effect

Period fertility rates around 2006 still negatively distorted (-0.04 in Spain to -0.52 in Taiwan) → scope for a future increase



1. INSTITUTIONAL CHANGE

FAMILY & PRONATALIST POLICIES

- Return of pronatalism: Governments intend to increase fertility
 - The “Green Paper” (Eur. Commission, 2005): low birth rate “challenge for the public authorities”; “return to demographic growth” essential priority
- Better childcare, parental leave, part-time and flexible jobs, more gender equality *likely to have some effect* (McDonald 2002 etc.)
- Innovative and unconventional policies may be tried;
 - subsidising childbearing in larger families (Demeny 2008, Hakim 2003)
 - linking retirement pension to the number of children (Demeny)
- Policies supporting earlier timing (*Tempo policies?*) (Lutz & Skirbekk 2005, Rindfuss & Brauner-Otto 2008)

1. INSTITUTIONAL CHANGE

ECONOMIC ADJUSTMENTS: THE POWER OF THE YOUNG?

- Deteriorating position of young adults in the 1980s-1990s at odds with their shrinking numbers
- **Southern Europe:** high youth unemployment one of the main reasons for low fertility (Adsera 2005)
- In the long run, labour market functioning may improve in many countries, pushing down unemployment
- Will economic position of the young adults improve as smaller cohorts enter labour market? (*Easterlin connection*)

Labour market reforms and lack of qualified labour may reduce unemployment and improve economic position of the young, which may increase fertility at ages <30

1. INSTITUTIONAL CHANGE

FAMILY ADAPTATION TO NEW SOCIETAL CONDITIONS

- Countries with most complete family transformation have highest fertility (Billari & Kohler 2004, Sobotka & Toulemon 2008)
- Societies not easily accepting extra-marital sex, residential independence of the youth, cohabitation, divorce and egalitarian family roles have low fertility and rapid postponement (also East Asia)
 - Prevailing societal norms, policies and parental control at odds with preferred lifestyle of younger women and men?
 - Partnership instability may increase fertility in low fertility settings (Thomson et al. 2009)

Changing family norms and acceptance of new behaviours may bring higher fertility

1. INSTITUTIONAL CHANGE

FAMILY ADAPTATION TO NEW SOCIETAL CONDITIONS

Billari (2005: 80): *“If the rule is one child per couple, the only way to reach replacement is to have individuals experience two couple relationships”*

1. INSTITUTIONAL CHANGE

‘FEMALE FUTURE’: TOWARDS CHILD-FRIENDLY SOCIETY?

- Women overtaking men in educational attainment, but not (yet) in wages, job careers and political positions
- This disparity likely to diminish, men may be the ‘losers’ of this transformation
 - Will societies increasingly led and ‘dominated’ by women become more children-friendly and family-friendly?
 - ‘Female future’ might also mean higher fertility

2. COMPOSITIONAL CHANGE

THE RISE OF MIGRANTS & ETHNIC MINORITIES

Migration main engine of population growth in the EU

- core EU-15 countries annual immigration over 0.5% in 2001-2007

Western & Southern Europe: immigrant F 'push' the TFR slightly upwards, usually by 0.05-0.10 (Sobotka 2008)

Northern Italy: foreign women increase local TFR up by 0.16 in 2008 (1.29 vs. 1.45)

US: high fertility persists across generations of Hispanic-origin immigrants (Frank & Heuveline 2005)

- their high fertility (TFR of 3.0 in 2007) pushes the country-level TFR up by around 0.2 (1.9->2.1) (NCHS 2008)

Central & Eastern Eur.: Persistent high fertility in some groups of Roma

Will more countries be like the US?

2. COMPOSITIONAL CHANGE

THE RISE OF HIGHLY-FERTILE RELIGIOUS GROUPS?

- *Lestadians* in Finland, *Mormons* in the US, '*Reformed*' *Calvinists* in the Netherlands as well as many groups of Muslims in Europe retain fertility rate & intentions well above 2
- **Israel:** Super-fertile traditional groups in a relatively modern society: intended no. of kids religious women: 7.1 in 2005 (DellaPergola 2007)

Continuing immigration and increased ethnic and religious heterogeneity likely to contribute to the rise of more-fertile populations and to a slight increase in overall fertility

3. CHANGING RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS, FAMILY, AND FERTILITY

A new branch of literature & contributions since ca. 2004: Changing correlations between socio-economic and cultural factors and period TFR in cross-country comparisons (most developed countries)

SOME REVERSALS:

- Richer = more fertile?
- High share of working women = higher fertility?
- Gender equal = more fertile?
- Low marriage rates = more children?

CAUTION:

- Correlations, NO CAUSALITY
- Usually based on problematic measure of fertility – the period TFR
- Cross-country comparisons, no individual-level findings

BUT these findings still important

3. CHANGING RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS, FAMILY, AND FERTILITY

WOMEN'S LABOUR FORCE PARTICIPATION

Rindfuss et al. (2003): Reversal in the correlation between female labour participation (FLFP) and period TFR; mid-1980s

- Moderately strong positive correlation
- Country-specific institutional responses: better compatibility of work & childrearing in higher-F-LFP countries

Engelhardt-Prskawetz (2004):

- Not a causal relationship, other factors responsible

Recent period TFR rise fast in many high-LFP countries

- Changing nature of female work and higher relative wages may positively contribute (Feyrer et al. 2008)

The future: More women at work = better work-family combination and more men's domestic work = higher fertility?

3. CHANGING RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS, FAMILY, AND FERTILITY

WOMEN'S LABOUR FORCE PARTICIPATION

Rindfuss et al. (2003): Female LFP vs. TFR in 1960-97

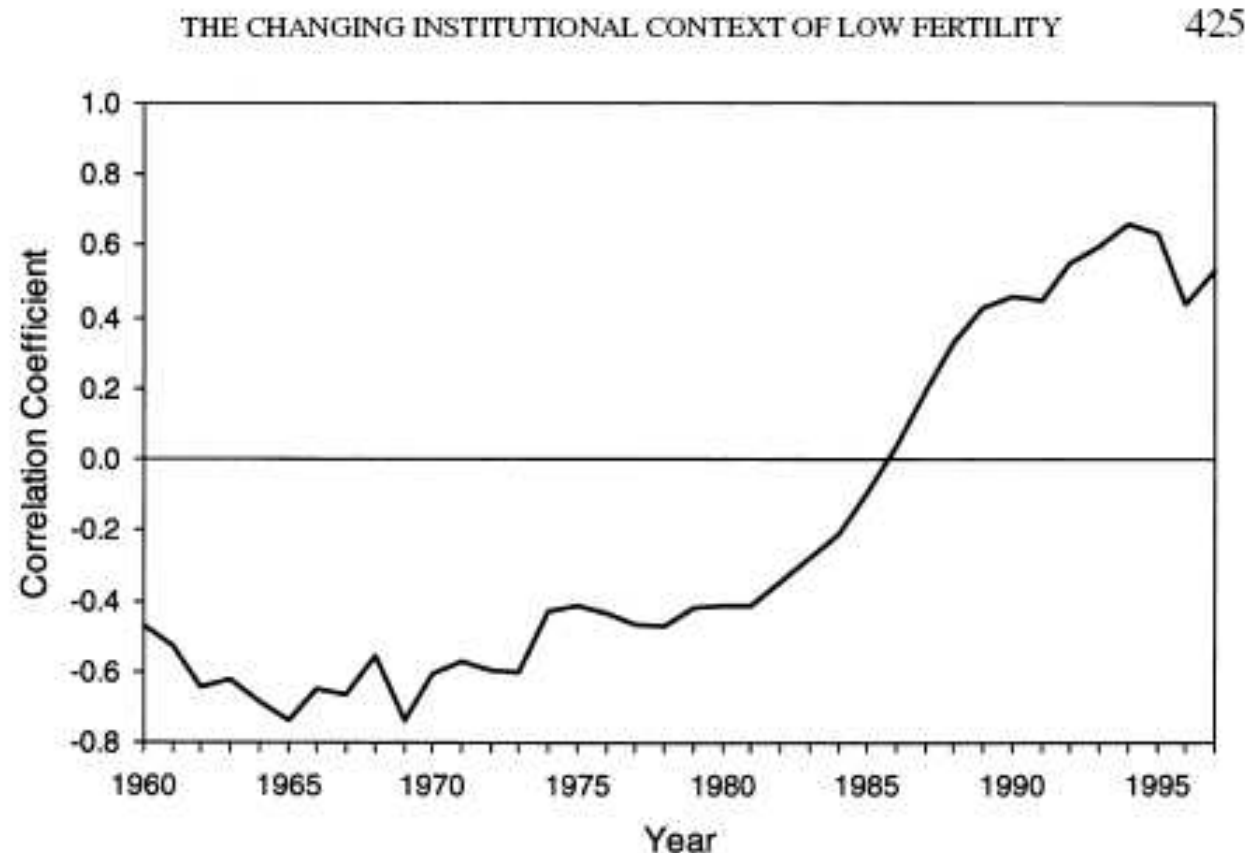


Figure 3. Correlation of the total fertility rate by female labor participation rate, 1960–1997.

3. CHANGING RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS, FAMILY, AND FERTILITY

HIGH EDUCATION MAY NOT HAVE A NEGATIVE EFFECT

- Women with university education: higher childlessness and lower fertility rates (Skirbekk 2008)
- Countries with lowest fertility: steepest education gradient and highest childlessness of the higher-educated

Will further increase in education lead to lower overall fertility?

Nordic countries:

- Declining education gradient for women (Andersson et al. 2009)
- Emergence of positive association between education and fertility for men (Norway, Kravdal & Rindfuss 2008)

If other countries follow, the fertility-depressing effect of education may be attenuated

3. CHANGING RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS, FAMILY, AND FERTILITY

WILL RICHER COUNTRIES HAVE HIGHER FERTILITY?

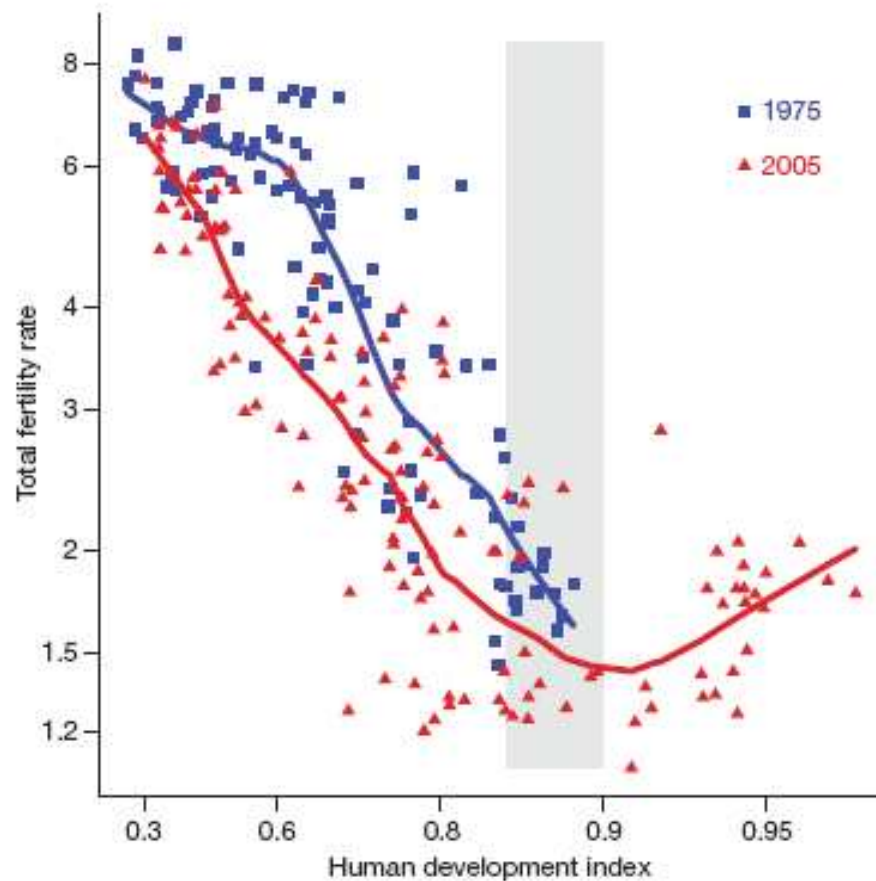
- A stylised fact: Development & wealth of the society will lead to lower fertility
- **Myrskylä et al. (2009):** When 'development' surpasses certain level, fertility rises again (Human Development Index)
 - In most socially and economically advanced societies (HDI > 0.86), TFR positively correlated with HDI in 2005 (not in 1975)
- Similar findings when GDP level used (Thévenon 2009: 25850 \$)

Future higher fertility? (Myrskylä et al. (2009)):

Country's wealth may increase fertility by improving well-being of their citizens and strengthening institutions supporting family & work

3. CHANGING RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS, FAMILY, AND FERTILITY

WILL RICHER COUNTRIES HAVE HIGHER FERTILITY?



Mikko Myrskylä &
Hans-Peter Kohler &
Francesco C. Billari
(*Nature*, 2009):

Period TFR and HDI

Figure 1 | Cross-sectional relationship between TFR and HDI in 1975 and 2005. The TFR reflects the number of children that would be born to a

3. CHANGING RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS, FAMILY, AND FERTILITY

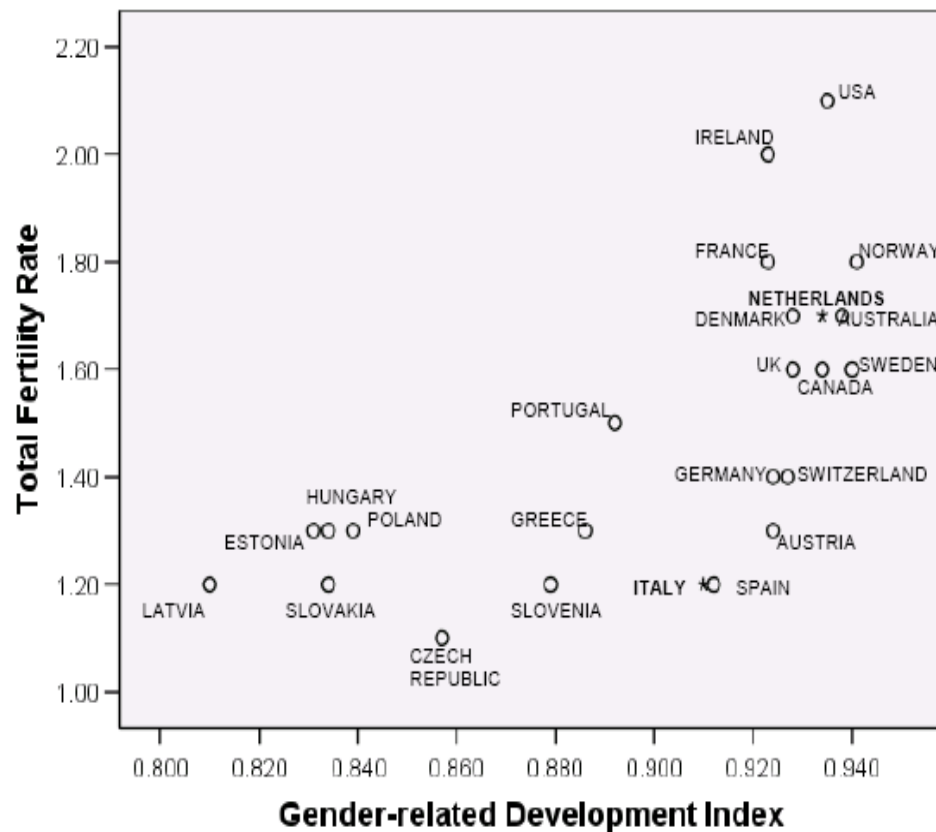
WILL MORE GENDER EQUALITY LEAD TO HIGHER FERTILITY?

- Countries with high gender equality have higher TFR (except German-speaking; Mills et al. 2008)
- Men's share of housework positively linked to the TFR (Feyrer et al. 2008)
- Intentions affected when household division unequal & women face heavy work burden (Mills et al. 2008 on Italy & NL)
- Also women's perception of the stressfulness of housework & little control over their work negative effect (Mills 2008)

As gender equality rises & household division of labour becomes less unequal, fertility may increase

3. CHANGING RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS, FAMILY, AND FERTILITY

Figure 1: Total Fertility Rate (TFR) and gender-related development index for selected countries



Source: TFR, United Nations http://www.un.org/esa/population/publications/worldfertility/Selected_Indicators.xls
GDI, Human Development Report (2003), Table 22, Gender-related development Index
Note: Dates of TFR vary between 2000 and 2001, GDI is 2001

WILL MORE
GENDER
EQUALITY LEAD
TO HIGHER
FERTILITY?

Melinda Mills et al.
2008:

Gender-related
Development
Index and TFR in
2001

3. CHANGING RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS, FAMILY, AND FERTILITY

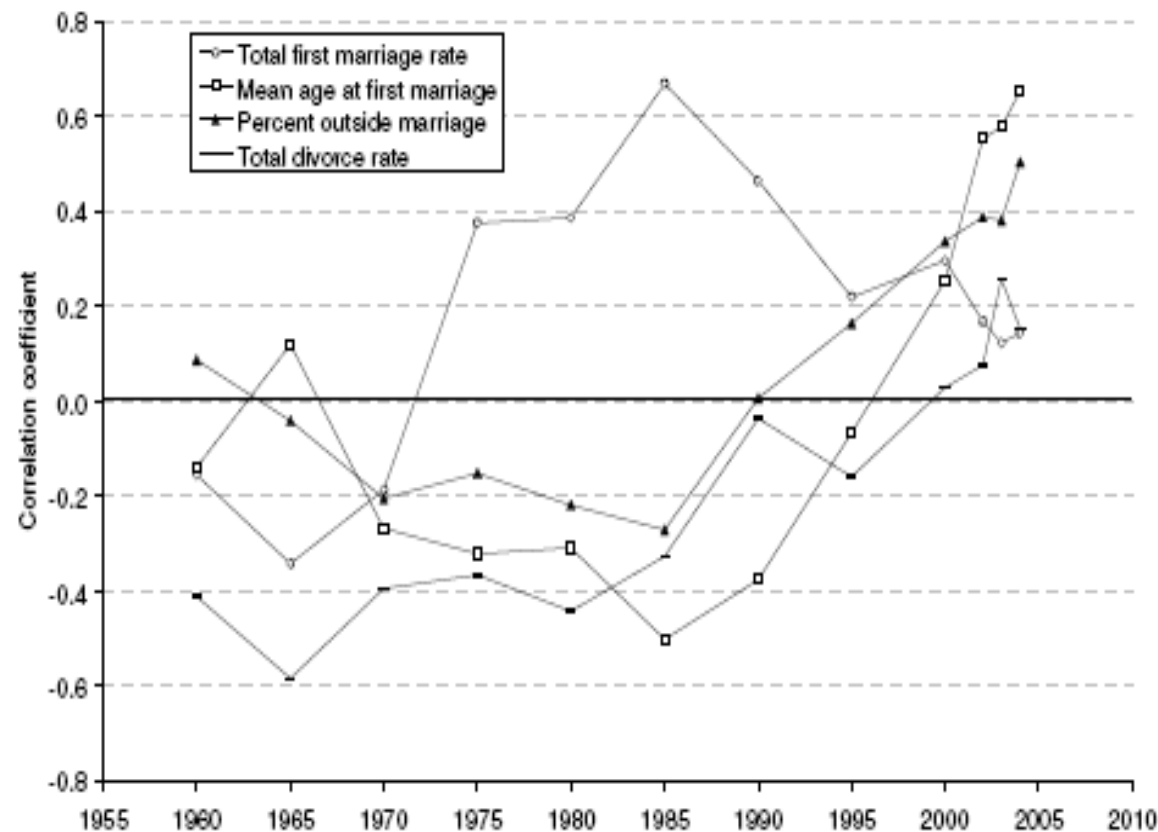
FAMILY CHANGE AND VALUES TRANSFORMATION:

Will more family instability and less traditional values increase fertility?

- Van de Kaa (2001): 'Postmodern' value orientation does not imply lower childbearing intentions
- Can less normative control over family & living arrangements lead to more lifestyle choice and higher fertility?
- Will more men and women have children with different partners?
- Independent living of the young & earlier home leaving may be facilitated by values changes

3. CHANGING RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS, FAMILY, AND FERTILITY

Figure 11: Correlation between the period total fertility rate and four indicators of family-related behaviours, 1960-2005

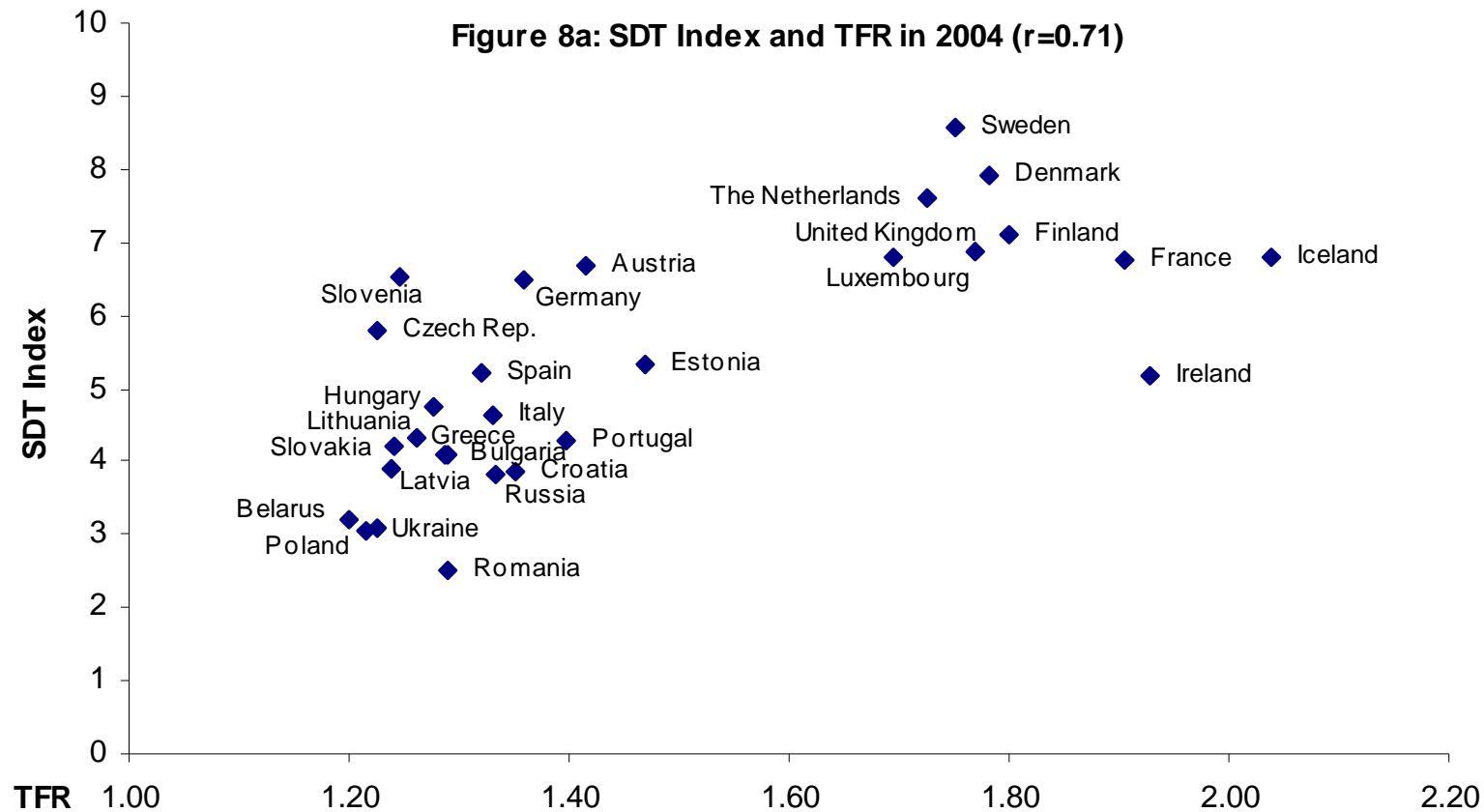


Source: Council of Europe, 2006. Update of computations by Billari (2005).
Note: Unweighted correlations, data include all countries of the Council of Europe.

Will more family instability and less traditional values increase fertility?

Sobotka & Toulemon 2008

3. CHANGING RELATIONSHIP BETWEEN SOCIO-ECONOMIC FACTORS, FAMILY, AND FERTILITY



Second demographic transition Index and period TFR around 2004
(Sobotka 2008)

4. TECHNOLOGICAL ADVANCES: ASSISTED REPRODUCTION AND BEYOND

INFERTILITY TREATMENT: WIDER COVERAGE, HIGHER EFFECTIVENESS

- Assisted reproduction (ART) often subsidised only for specific groups: married, heterosexual, with no children, below age 40...
- Very limited success rates above age 40
- Trends towards re-definition of infertility as a 'disease' or 'medical condition' -> broader access to ART
- Efforts to make ART a part of pronatalist policies (Grant et al. 2006)
- Technological advances: cryopreservation ('egg freezing'), embryo donations, higher success rates

Wider access, higher acceptance and improved success rates likely to lead to a slight increase in the ART contribution to fertility up to the current maximum values of 4-5 % (Denmark, Israel)

SUMMARY & DISCUSSION

What importance attached to different factors?

Potentially strong effect:

- “*Completing the second transition*” – gender equality and new family arr.
- An end of tempo distortions (only for period fertility)
- Labour market functioning & improved income of the young

Potentially moderate effect:

- The rise of higher-fertility ethnic and religious groups
- Pro-natalist and family-oriented policies
- Higher wealth, more affluence
- Higher education no longer negatively linked to fertility

Potentially small effects

- Partnership instability
- Wide provision of infertility treatment, improved technology

SUMMARY & DISCUSSION

A note of caution: Many factors will put a downward pressure on fertility (including the current economic recession); e.g. Lutz 2006

- Many discussed factors interrelated
- I argue that the overall balance likely to be positive
- But: Not all countries likely to see a significant fertility rise
- Diversity is the key: **No long-term equilibrium envisioned**
 - some countries may see a long-term period and cohort TFR above 2 (Ireland, Norway, France); some countries may be 'trapped' with the TFR levels below 1.5 (possibly Eastern Europe, perhaps Germany?)

SUMMARY & DISCUSSION

Two (plus) pathways towards higher fertility:

1. **More countries more like Sweden:** Gender equal, developed welfare, advanced family transformation, cheap housing, high female LFP, high childcare provision and close-to-replacement fertility

2. **More countries more like the US:** Competitive labour market, rather low unemployment, large share of high-fertility migrant & ethnic groups, and around-replacement fertility

(Plus): More countries a bit like France: Wide system of pronatalist and pro-family policies & around-replacement fertility

SUMMARY & DISCUSSION

There is nothing inevitable about (very) low fertility (Morgan 2003)

- Neither family change nor affluence or social mobility have destroyed the desire to reproduce

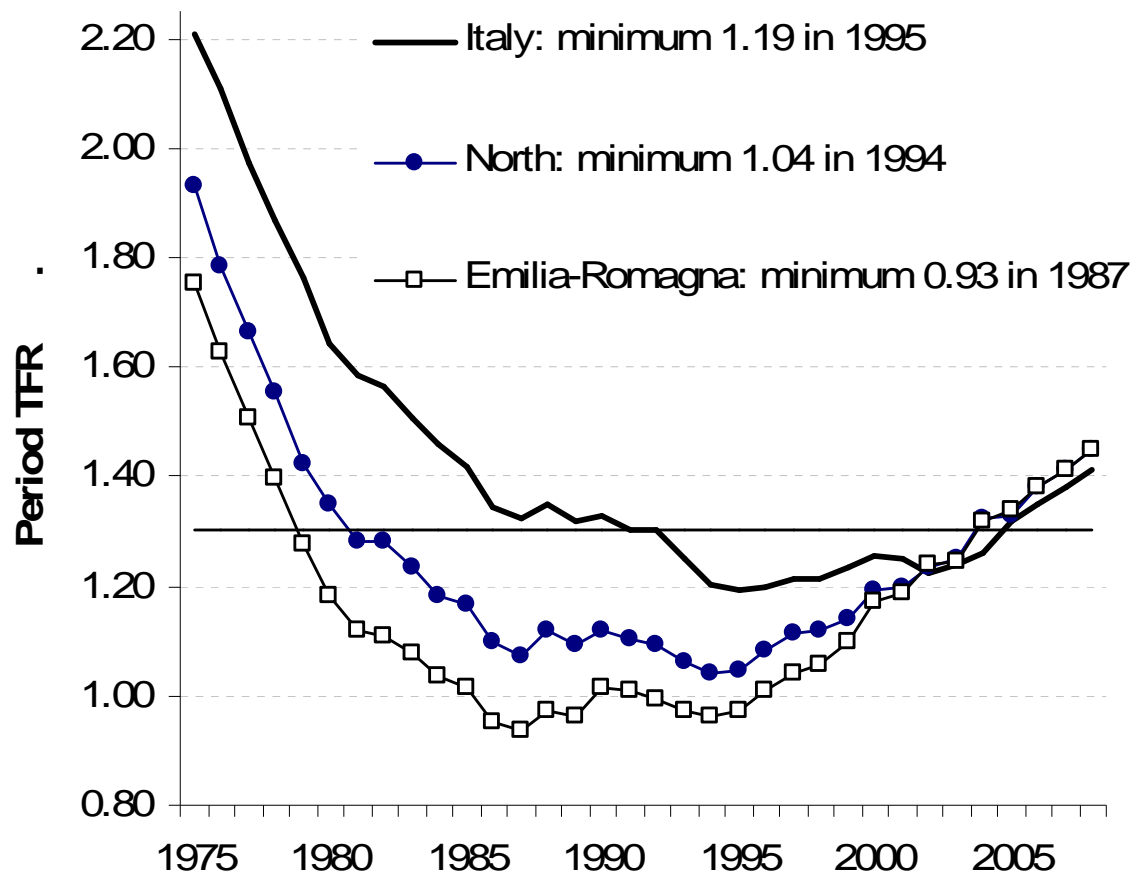
Arguments that the “big family change” will be fatal for human reproduction unwarranted

- Was then turn of the Millenium a long-term low-point in fertility in Europe?
- *Will there be above-replacement cohort fertility in some European countries for the women born in 2000?*

And....Will we see more of the “Kingsley Davis model”? (4 kids with 3 different wives)

SUMMARY & DISCUSSION

A view from the future? A period TFR upturn in the lowest-fertility regions of Italy



The province of Emilia-Romagna:

TFR 0.94 in 1987
(0.39 below TFR for Italy)

Est. of 1.45 in 2008
(0.04 above Italian TFR)

Native women:
TFR=1.27; net effect
of foreign-born +0.17