

The rising importance of migration for childbearing and population trends in Europe

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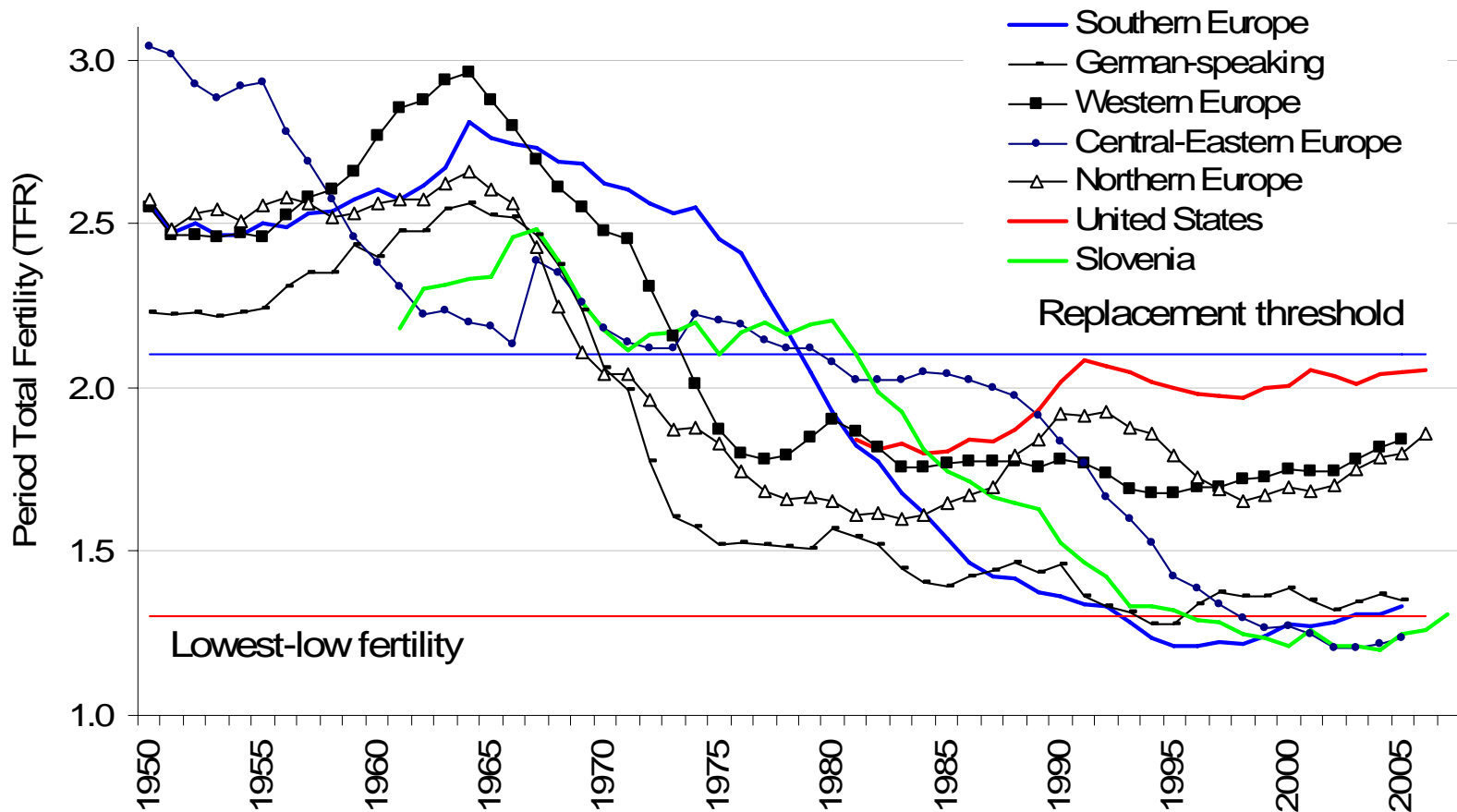
Vienna Institute of Demography



Conference “Slovenian Demographic Challenges in the 21st Century”,
Ljubljana, 8-9 October 2007

Europe has become a low-fertility region with rapidly ageing population

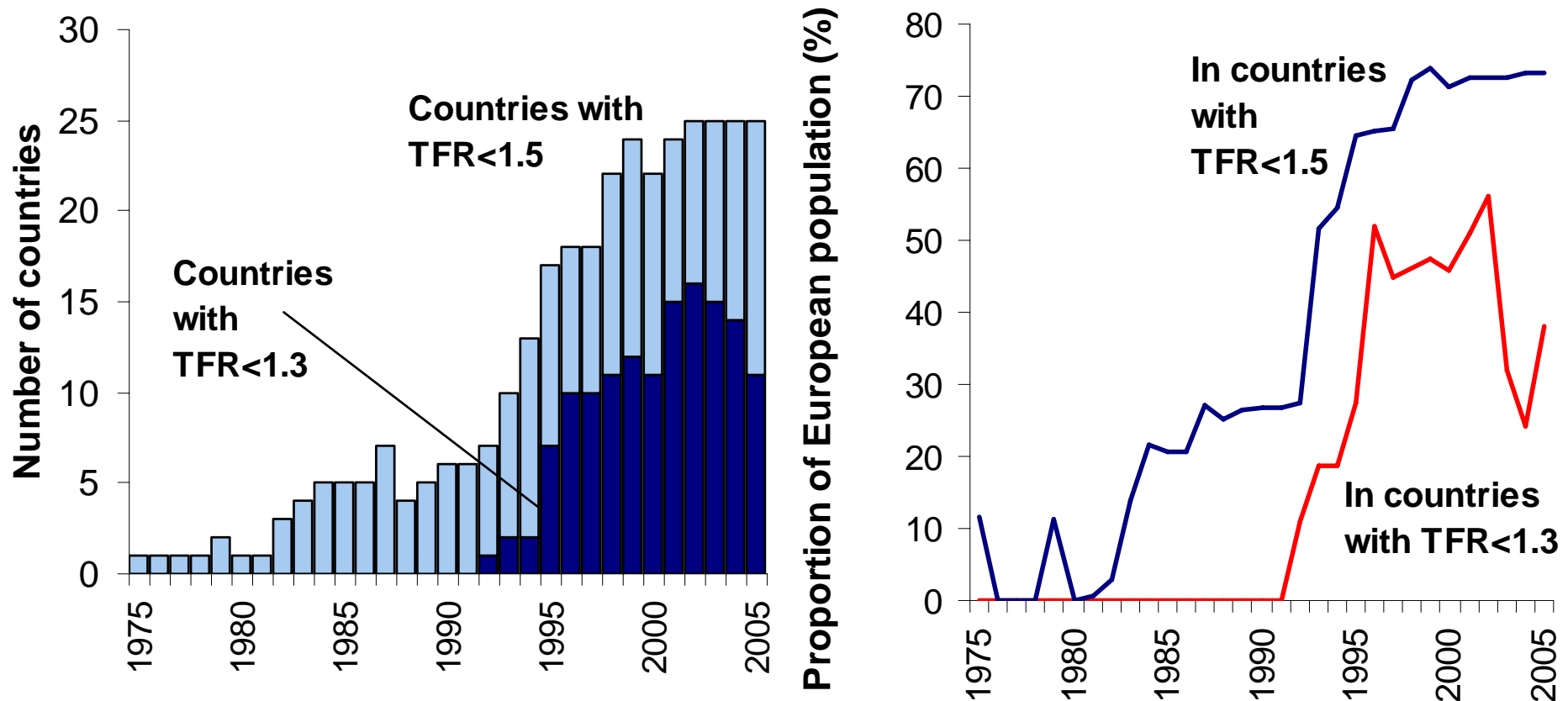
Period Total Fertility Rate, regional averages, 1950-2006



New regional division in fertility (North-West vs. other regions)

The spread of low and “lowest-low fertility” in Europe

EUROPEAN FERTILITY CRISIS?

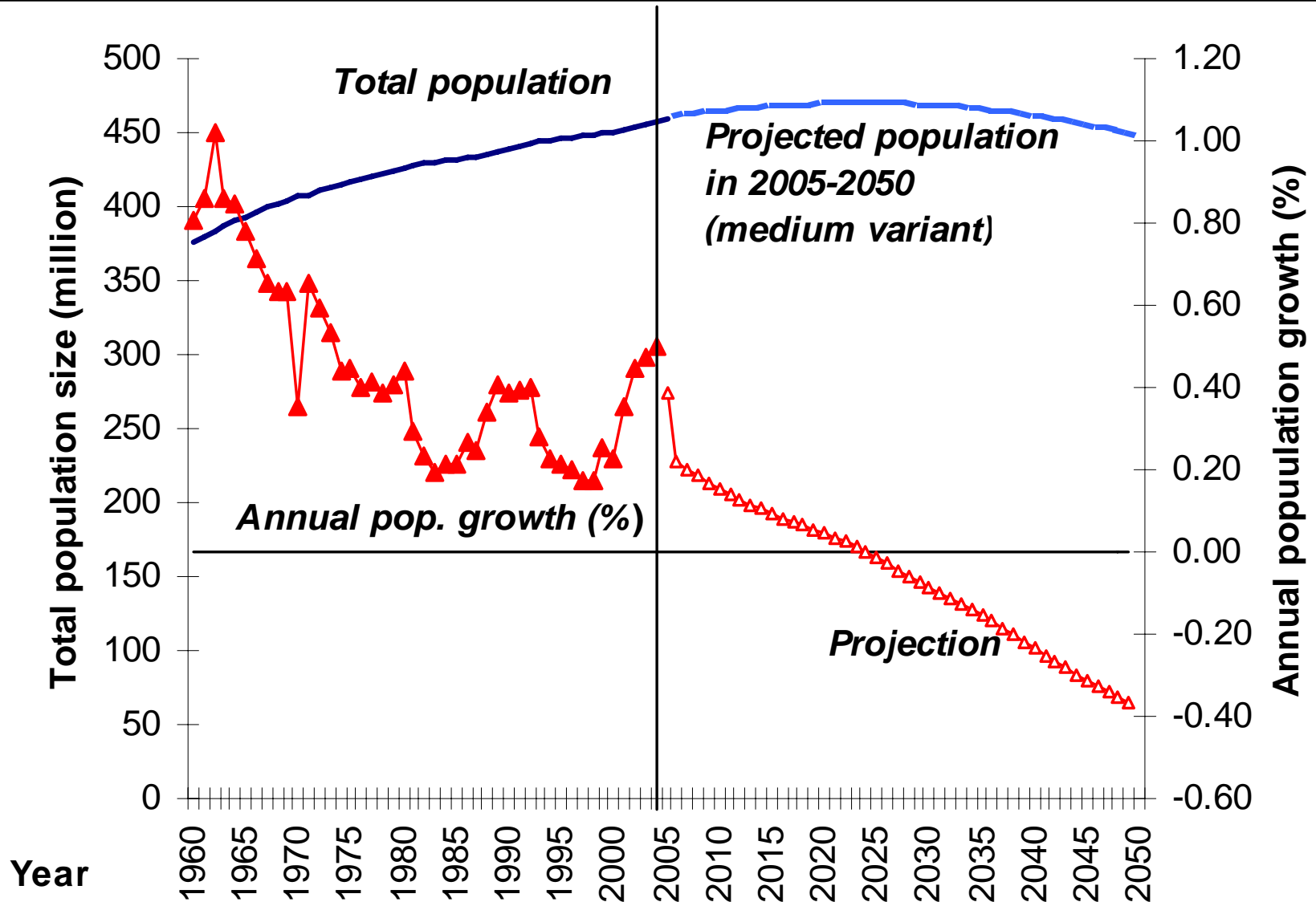


Data sources: Council of Europe (2006), Eurostat (2006)

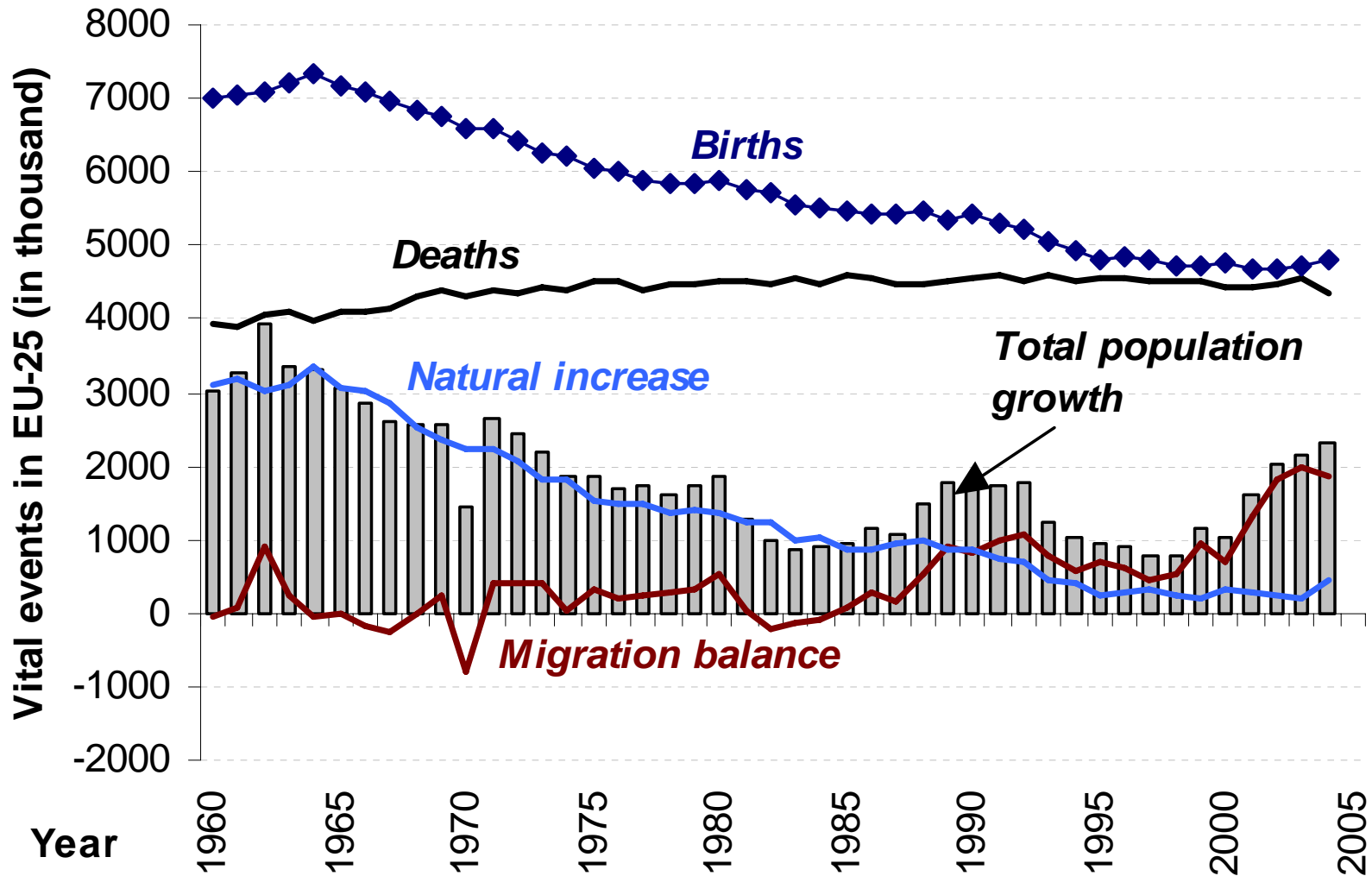
Renewed fears of “fertility implosion,” “baby deficit” and population decline

- 1920s and 1930s: spreading concerns about low birth rates and their consequences
- 1970s-?: renewed fears of declining fertility, rapid population ageing and declining population size
 - J. C. Chesnais (2001): population implosion in the 21st century may be particularly pronounced in Europe
 - Pope Benedict XVI (Christmas 2006): Europe “...seems no longer wants to have children” (...) and “seems to be wishing to take its leave of history”
- Increasing political concerns & pronatalism
 - The “Green Paper” (European Commission, 2005): low birth rate is a “challenge for the public authorities”; “return to demographic growth” is one out of “three essential priorities”

The current & future population trends in the European Union (25), Eurostat 2004 projection



Migration has become the main 'engine' of population growth in the EU



Migration has become the main ,engine‘ of population growth in the EU

- In the early 2000s net migration growth in the EU outpaced the migration growth in the US, a classic country of immigration
- 2004: EU pop. growth 0.54 %, of which 0.38 % due to immigration
- Recent immigration levels in many countries well above the projected values (Italy, Spain, Norway, UK, Sweden, the Czech Republic); huge cross-country diversity
- Coleman (2006): Immigration gradually transforming European populations in the manner unforeseen by various pop. projections
- Increasing impact on age composition, marriage rates (also through intermarriage), living arrangements and partnership forms and fertility

Analysis: The multifaceted impact of immigration on childbearing and population trends

Two dimensions analysed:

- 1) Impact of immigration on childbearing trends
- 2) ‘Replacement migration’: Impact of immigration on population size

Focus: Regions with large immigration streams in the last decades (Western, Southern, Northern Europe)

Slovenia may deviate from these findings to a large extent, but it is likely that migration will further gain on importance (as was the case in Southern Europe)

The underlying hypothesis

Migration can partly serve as an equal substitution for births 'missing' due to low fertility, owing to a combination of several factors:

- The size of migration streams
- The young age composition of migrants
- The additional effect of migrants' higher fertility rates (often overlooked!)

PART 1: The rising importance of migrants for childbearing trends in Europe

Relatively few comparative studies on

- the impact of migration on childbearing & fertility
- the contribution of immigrants' fertility to population size and age structure
 - Partly linked to the lack of comparable data

The impact on fertility and population trends increasingly debated

- also related to the possible role of immigrants' fertility on the recent rise in the TFR in many countries (e.g. Héran and Pison 2007 for France)

Comparative studies: articles in Haug, Compton and Courbage (2002), Coleman (1994), Schoorl (1995)

Country-specific studies: Toulemon (2004), Toulemon and Mazuy (2004) (France), Garssen and Nicolaas (the Netherlands), Roig Vila and Castro Martín (Spain), Andersson (2004) for Sweden, Østby 2002 (Norway)

United States: High fertility of immigrants from Mexico (Frank and Heuveline 2005) and its impact on population size (Jonsson and Rendall 2004)

Methodological difficulties in studying fertility of (im)migrants across countries

DATA, DEFINITIONS: Ideally, statistics on births to immigrant women (= born abroad and currently resident in a country). Such data usually not published or collected (exceptions: the UK, NL, Denmark, Norway, Sweden). Most countries collect data by **nationality**

- select group of immigrants, not representing the whole community
- shorter duration of residence, lower level of integration
- different criteria for ‚naturalisation‘ make this statistics even less comparative across countries

When data available, different generations distinguished:

G1: usually those who have immigrated

G2: born in the country & having at least one immigrant parent (other definitions possible: e.g., by age at immigration, G1.5)

Methodological issues (2)

- Usually no data available on **fertility among emigrants**; no reliable estimates on the impact of emigration on childbearing & fertility trends (important in the CEE countries with labour emigration: BG, PL, UKR, LIT...)
- Data on births to **immigrant men** scarce (exception: countries with population registers)

Computing migrants' fertility rates:

- TFR and age-specific rates problematic, especially for recent immigrants (and hence also for the 'foreign' nationality women):
 - Migration frequently interrelated with family formation and childbearing: immigrants' fertility strongly depends on time since immigration (Toulemon 2004, Andersson 2004, Østby 2002).
 - Migrants' period fertility rates particularly high at short durations of stay (could be controlled if data available; Toulemon and Mazuy 2004)

This analysis

Different indicators on the importance of immigrant women for childbearing & fertility

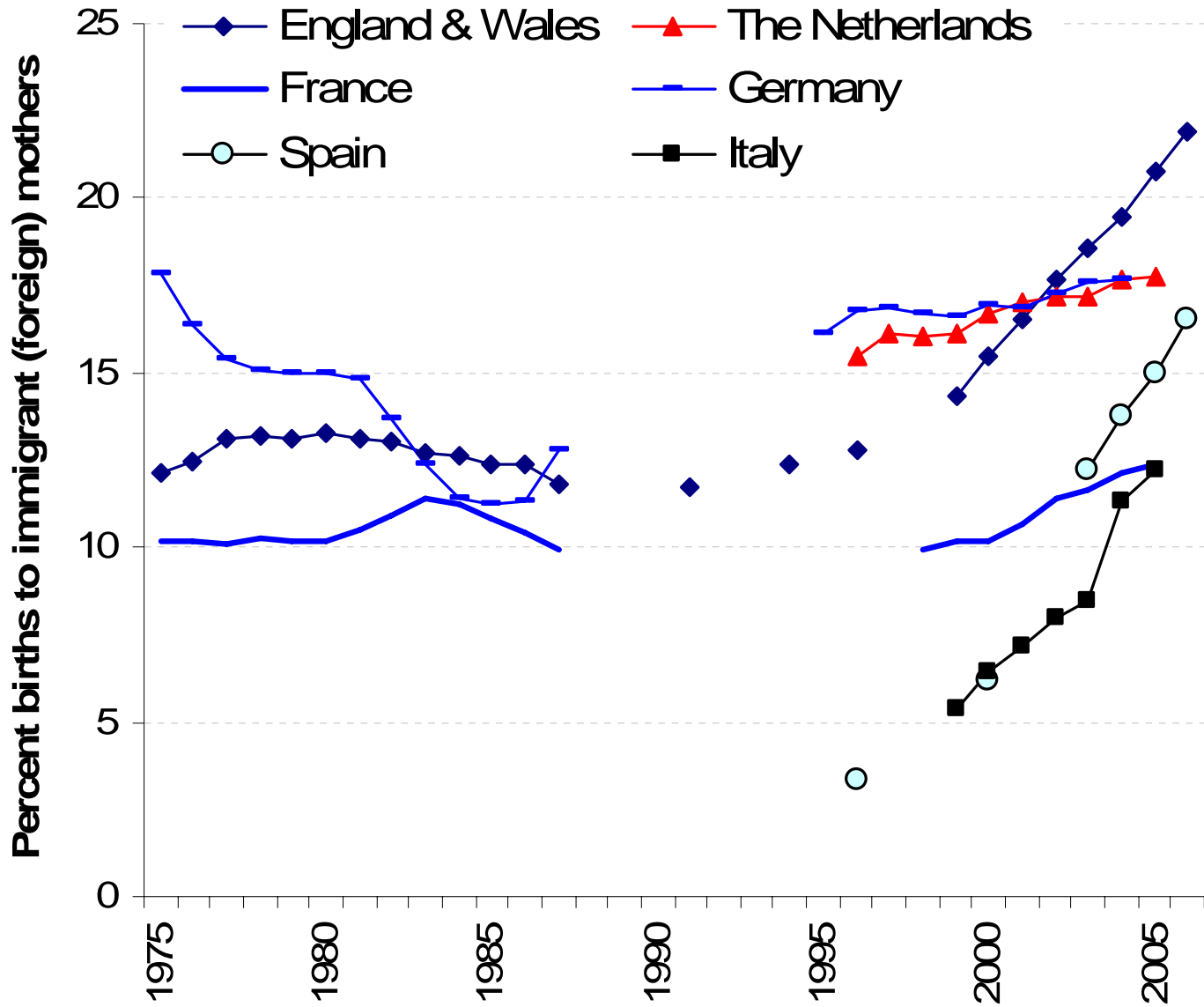
- 1) Contribution to the total number of births
- 2) Differential fertility rates: Does immigrants' fertility surpass fertility of native-born women?
- 3) The heterogeneity in immigrant's fertility
- 4) The impact of immigrants on the overall fertility rates

Data: Focus on immigrant women in Southern & North-western Europe

- both ,proper' data on immigrant women and the ,distorted' data on foreign women used
- the latter are only indicative and should be interpreted with caution

1) The contribution of immigrants to the total number of births

	Period	Births to immigrant women (%)	Births to immigrant women, 1 st + 2 nd gen. (%)	Births to foreign mothers (%)	At least one parent foreigner (%)	Source
Denmark	1999-2003	13.5		11.1		Statistics Denmark 2004
England and Wales	1980	13.3				Schoorl 1995, p. 100
	1996	12.4				ONS 2005, p. 51
	2004	19.5				ONS 2005, p. 52
France	1991-98	12.4				Toulemon 2004
	1998				14.5	Prioux 2005, p. 449
	2004	15 (est. Heran & Pison 2007)			18.2	Prioux 2005, p. 449
Italy	1999			4.0		ISTAT 2006
	2004			8.7		ISTAT 2006
The Netherlands	1996	15.5	21.0			CBS Statline 2006
	2005	17.8	25.5			CBS Statline 2006
Spain	1996			3.3	4.5	Instituto Nacional de Estadística 2006, Vila and Castro Martin 2005
	2000			6.2	7.9	
	2004			13.7	16.9	
	2005			15.0		
Sweden	2005	19.5		11.8		Statistics Sweden 2006
Switzerland	1980			15.3		Coleman 2003
	2000			22.3		Swiss Statistical Office
	2005			26.3		2006



2) Differential fertility rates: Does immigrants' fertility surpass fertility of native-born women?

Total fertility rate of native and immigrant women

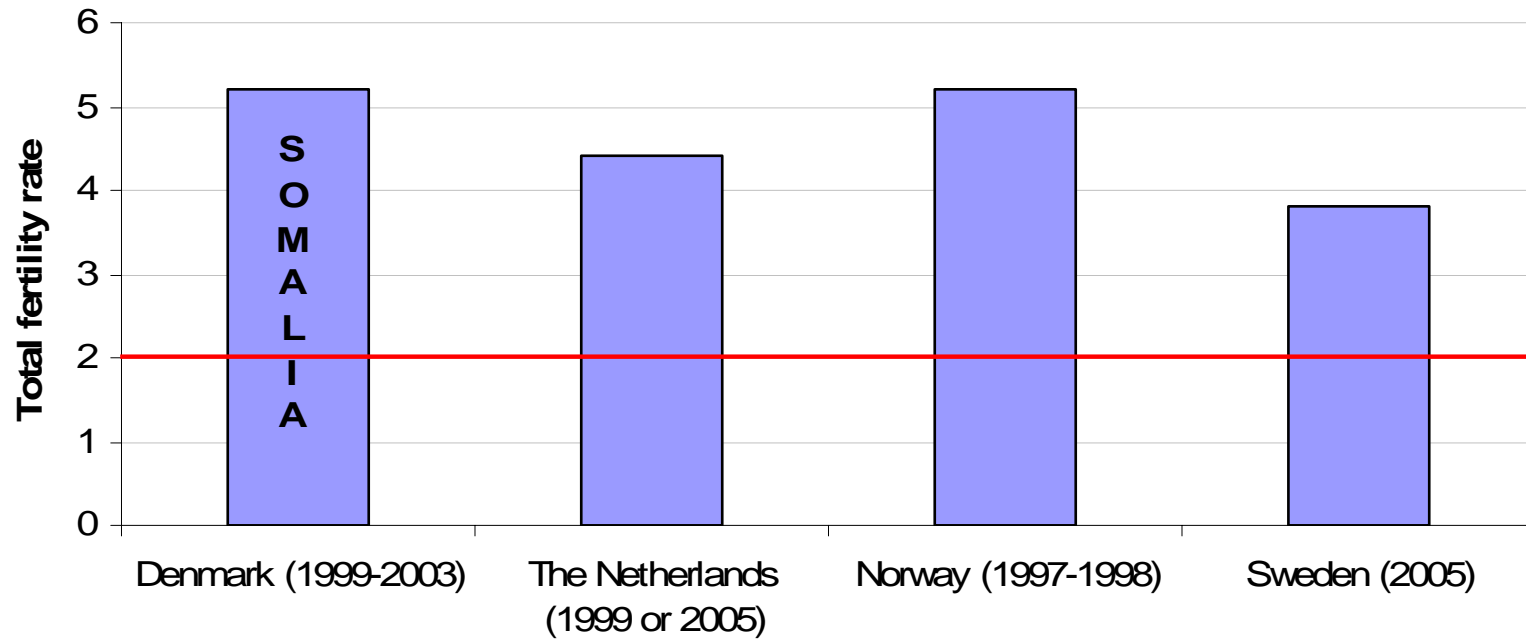
Country	Period	TFR			Source
		Native women	Immigrant women	Diff.	
Denmark	1999-2003	1.69	2.43 ¹⁾	0.74	Statistics Denmark 2004
England & Wales	2001	1.6	2.2	0.6	ONS 2006
France	1991-98	1.65	2.5	0.85	Toulemon 2004
	1991-98	1.70 ²⁾	2.16 ²⁾	0.46 ²⁾	Toulemon 2004
The Netherlands	2005	1.65	1.97	0.31	CBS 2006
Norway	1997-98	1.76	2.42	0.66	Østby 2002
Sweden	2005	1.72	2.01	0.29	Statistics Sweden 2006

Notes: 1) excluding immigrant women born with Danish nationality

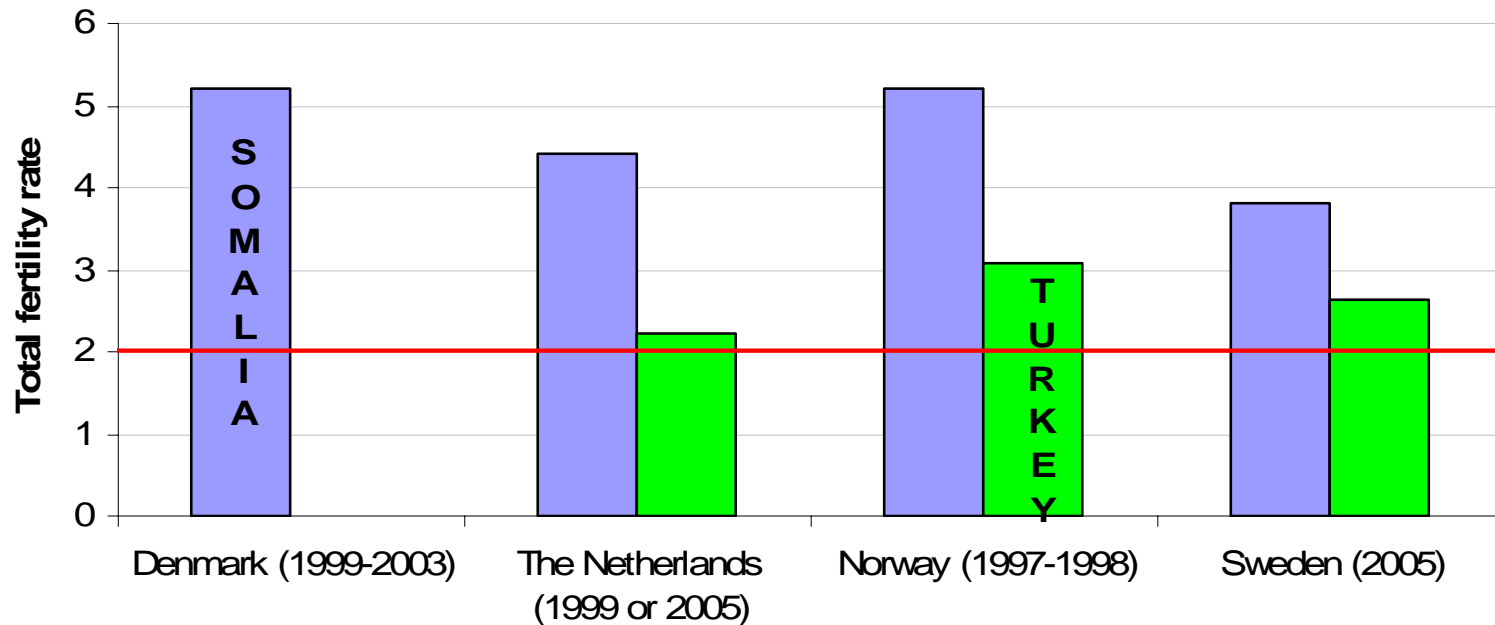
2) Data adjusted for age at arrival to France

Immigrants' TFR typically at or around 2.0 – well above the TFR of the ,native-born' women, even when controlling for duration or age at arrival

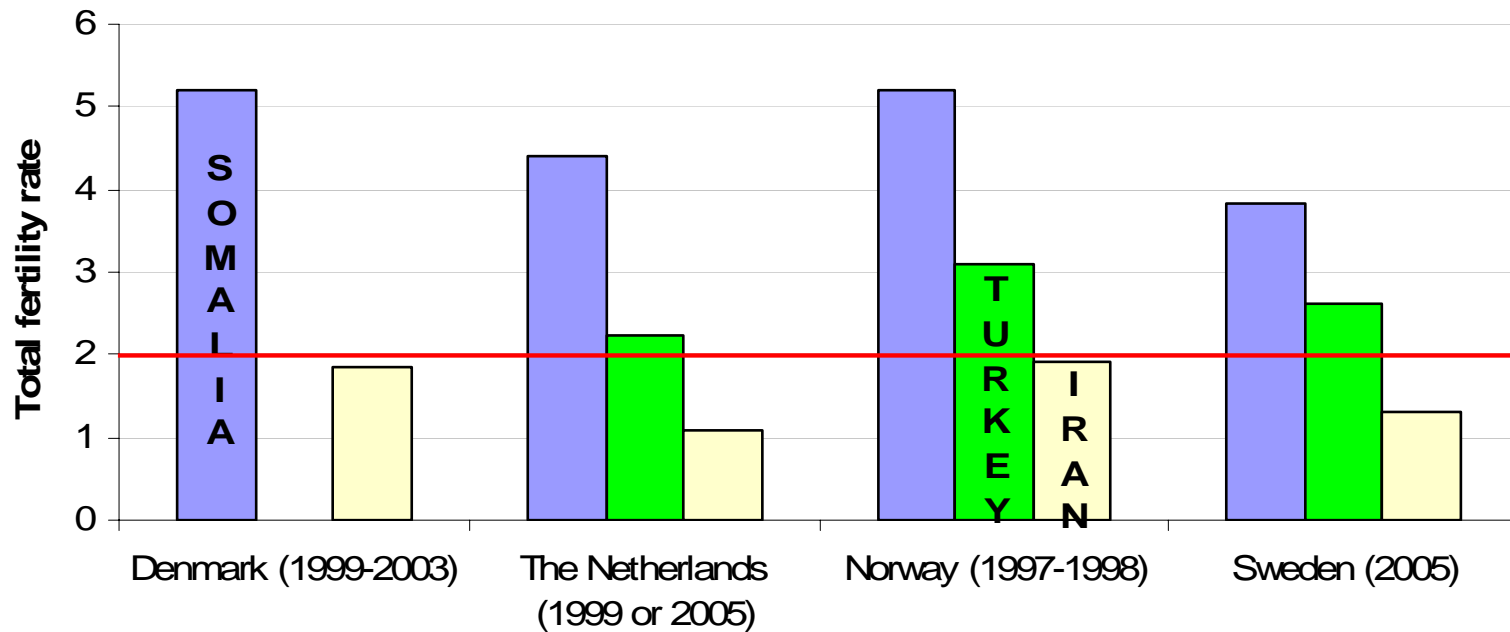
3) Fertility rates are very heterogeneous with respect to migrants' country of origin



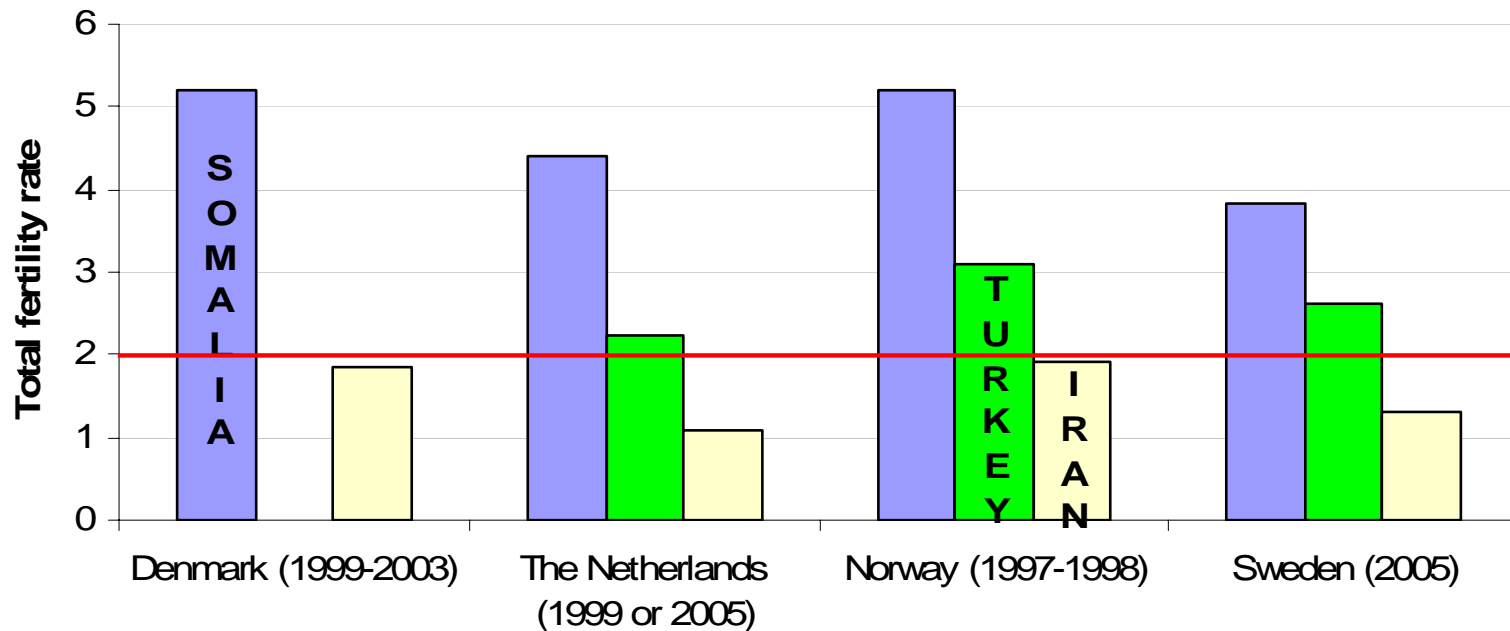
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It is often suggested that the ,pronatalist' culture with disadvantaged position of women is responsible for high fertility of immigrants from predominantly Muslim societies.

- More nuanced picture: country and region of origin, education and social group probably play more important role for fertility than religion as such.

4) The impact of immigrants on the overall fertility rates

The 'Net effect' of immigrant women on the observed period TFR

Country	Period	TFR			Source
		All	Native	Net effect	
Denmark	1999-2003	1.76	1.685	0.075	Statistics Denmark 2004
England and Wales	1996	1.74	1.67	0.07	Coleman et al. 2002
France	1991-98	1.72	1.65	0.07	Toulemon 2004
The Netherlands	2000-2005	1.724	1.646	0.078	CBS Statline 2006
The Netherlands 1)	2000-2005	1.724	1.68	0.044	CBS Statline 2006
Norway	1997-98	1.81	1.76	0.05	Ostby 2002 (Lappegård 2000)
Sweden	2005	1.769	1.716	0.053	Statistics Sweden 2006

Notes: 1) Including the second generation of immigrant women (mother born in the Netherlands, at least one of her parents born outside the Netherlands)

➤ similar and rather consistent result across countries, also when measured for foreign-nationality women only

The evidence on fertility adaptation

- ‘Adaptation hypothesis’ receives relatively broad support: fertility rates of immigrants often converge to the fertility of native women after a longer duration of stay and for the 2G of immigrants
 - Specific institutional factors may have a similar influence on childbearing behaviour of various groups of immigrants (Andersson and Scott 2005)
 - However, the adaptation of immigrants to the local social context may also imply a shift to a higher fertility in comparison with their country of origin (Mexican immigrants in the US, see Frank & Heuveline 2005)

Other distinctive features of immigrants' childbearing behaviour

Non-European immigrants: earlier family formation & lower childlessness

- this pattern often different in the 2nd generation: High childlessness and delayed childbearing among 2G women from Turkey and Surinam in the Netherlands

Extramarital childbearing: Women from the more ,traditional' countries display very low extra-marital fertility

- England & Wales: 2% of children born to women from Bangladesh, Pakistan and India extra-marital (49% among the native-born women)
- Spain: women from the countries with higher extra-marital fertility (esp. Latin America) partly responsible for the rapid rise in the percentage of extramarital births in Spain (Delgado et al. 2008)

PART 2: 'Replacement migration': The role of immigration for sustaining population size

- UN report (2000): *Replacement migration: Is it a solution to declining and ageing population?*
- Often misinterpreted; different concepts of 'replacement migration'
- **CONSENSUS:** migration cannot stop population ageing; only modest impact on slowing-down the process (largely valid for fertility as well)
- *Can immigration substitute most of the birth 'deficit' even in the countries with very low fertility?*

Measuring replacement migration

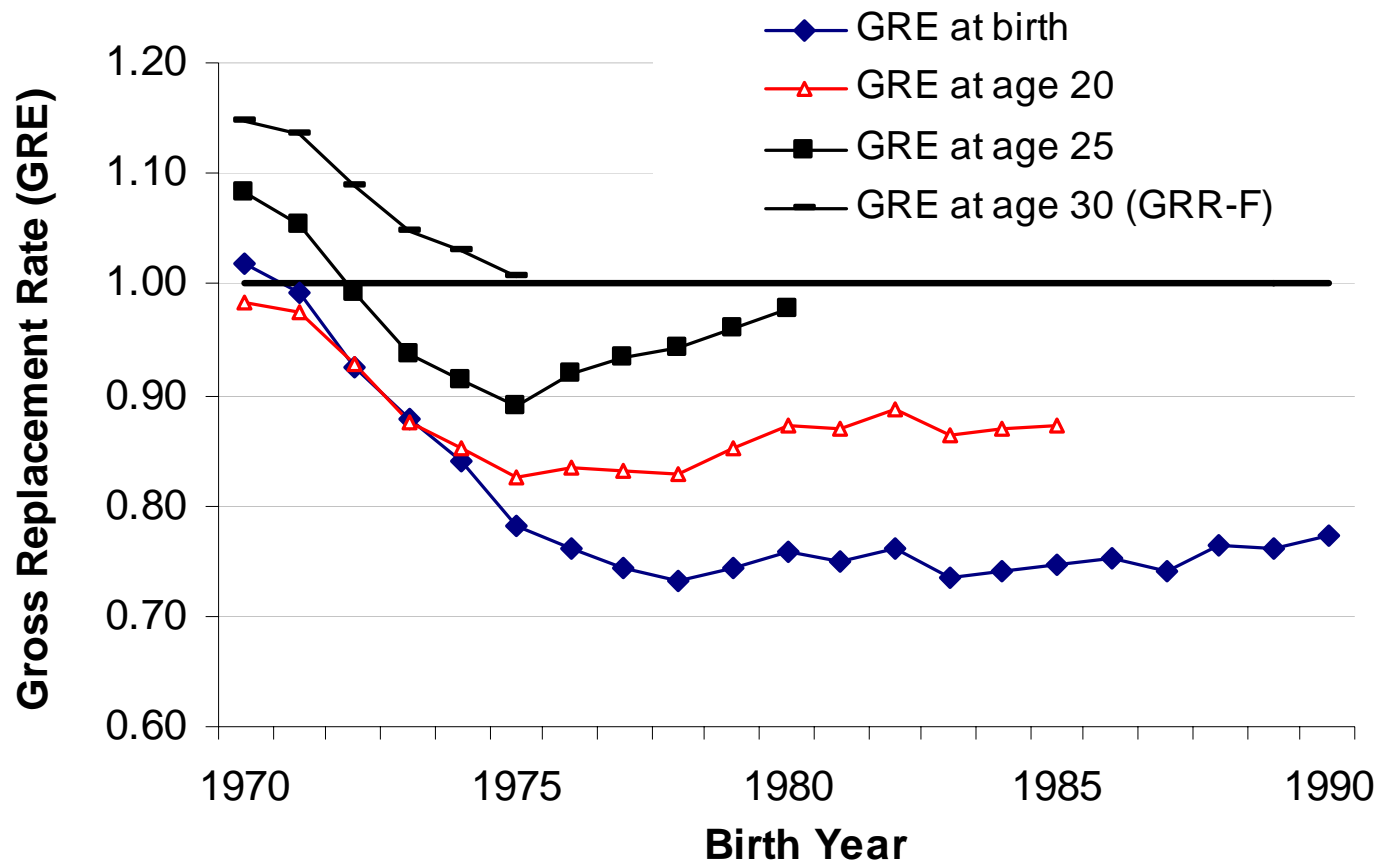
- Importance of immigration: need to rethink the traditional concepts of replacement fertility (Calot & Sardon 2001, Smallwood & Chamberlain 2005)
- Measuring longer impact of immigration by combining period & cohort measures:
- **GRE (=Gross REplacement rate)**
 - tracing the change in the relative cohort size of female population from birth through the prime reproductive ages
 - At birth: $GRE(t) = GRR(t)$ (*Gross Reproduction Rate*) = $= TFR * (\text{female live births} / \text{all live births})$
 - At age 30 (final **GRE-F**)
 $GREF(t) = P_F(t+30)/P_F(t) * GRR(t)$

Interpreting the Gross REplacement rate

- A mixture of period (GRR) and cohort approach (subsequent changes in female pop.)
- **Drawback:** 30-years time lag needed for computing GRE-F
- **Advantage:** Simple computation, no need of sophisticated data
- GRE-F accounts for the effects of mortality, emigration, and immigration before age 30
 - Women born outside the country C and immigrating to the country C before age 30 are treated *as if* they were born in the country C

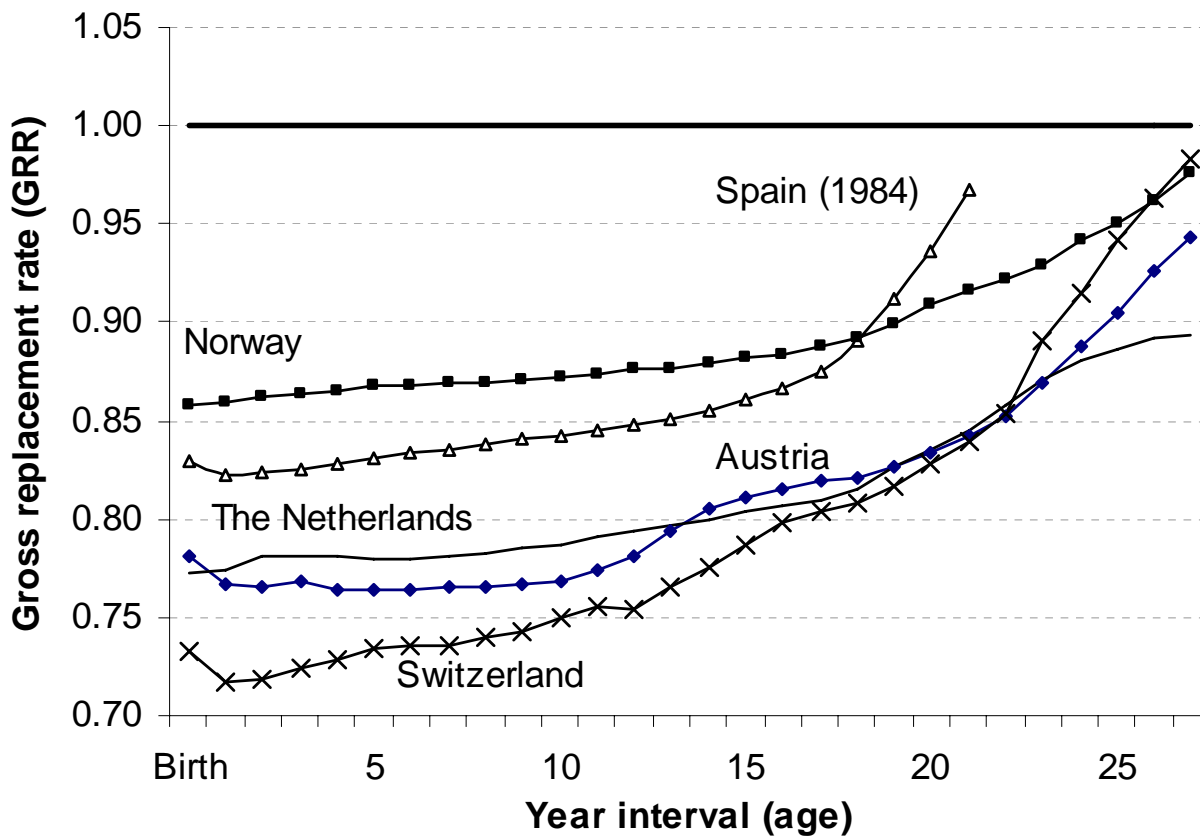
Switzerland: a textbook example of very low fertility combined with replacement migration

Switzerland: GRE at the time of birth (GRR) and at the duration (age) 20, 25, and 30 (GRE-F)



Cross-country comparison: different combinations of fertility and migration levels

GRE for 1978 (1984 for Spain)



By age 27, GRE up to 0.90-0.98

Younger cohorts: further decline in the GRE at age 0 and faster subsequent increase

SUMMARY of major findings: Impact of migration on childbearing trends

- 1) Immigrant or foreign-nationality women account for a relatively high and typically rising proportion of births
- 2) Immigrant women have, on average, notably higher period fertility rates than the 'native-born' women
- 3) However, the diversity in fertility between groups of immigrant women is enormous
- 4) Immigrants have a small, but non-negligible positive impact on the period fertility rates in Western, Northern and Southern Europe
 - Migrant women played a relatively minor role in the recent rise in the period TFR in many countries of Europe (slowing-down of fertility postponement more important)
 - In some cases (especially the Netherlands) convergence between the TFR of foreign-born and native women

SUMMARY of major findings (2)

- Migration streams in many parts of Europe are substantial and have a sizeable impact on population size
- Migrants typically come at young ages (18-30), rejuvenating thus slightly the population in a similar way as births do
- Migrants usually have higher fertility rates, contributing to a higher numbers of births and having thus an additional impact on population size and distribution

The fertility contribution of immigrants has often been neglected in various projections & population estimates

- US: rejuvenating effect of immigration primarily due to the higher fertility of immigrants (Jonsson & Rendall 2004)

Migration and fertility combined: Avoiding the future population implosion in Europe?

- ‘Replacement migration’ may occur even in regions with sustained very low fertility rates (Spain, Switzerland, Northern Italy)
 - Past population projections tended to underestimate the impact of migration (Spain most extreme example)
- The envisioned „population implosion“ in the EU-25 (after 2025 according to Eurostat 2006) may not occur (also Alho et al. 2006)

Dalla Zuanna (2006): sustained low fertility-high immigration cycle in Northern Italy:

Low-skilled migration mixed with high aspirations for social mobility of migrants’ children, leading to their fertility reduction and creating a need for further immigration

Migration and fertility combined: New fertility and population divides in Europe

- When fertility and migration viewed together, current low fertility does not constitute an important threat for Europe's population future (especially not for the richer countries)

Divergent pathways of different regions (a stylised picture)

WESTERN and NORTHERN EUROPE (excl. D, SWI, AT)

- *Relatively high fertility and moderate to high immigration imply further population growth and slower aging (similar to the US)*

SOUTHERN EUROPE

- *Low fertility combined with high immigration imply further population growth and less severe ageing than initially envisioned*

EASTERN AND SOUTH-EASTERN EUROPE

- *A troubling mix of low fertility, high mortality and (mostly) negative migration balance will have long-lasting negative impact and lead to a long-term depopulation*

Questions?
Comments?



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Much of the presented research is forthcoming in the following publications

Sobotka, T. 2008 „The rising importance of migrants for childbearing in Europe.“ In.: T. Frejka, J. Hoem, T. Sobotka and L. Toulemon (eds.) *Childbearing trends and policies in Europe*. Forthcoming as a special collection in *Demographic Research*, 2008.

Sobotka, T. 2008. „Does persistent low fertility threaten the future of European populations?“ In.: J. Surkyn, J. Van Bavel, and P. Deboosere (eds.) *Demographic Challenges for the 21st Century*. Brussels: VUB.