

The Low Fertility Trap Hypothesis

Three mechanisms that can produce a
downward spiral in the future number of births
in very low fertility settings

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Purpose of Defining such an Hypothesis

- Virtually all population projections for low fertility countries **assume end of fertility decline** at current cohort level (Eurostat) or increase (UN), while at the same time continued increases of life expectancy are assumed.
- To be honest: **we have no good theory** with predictive power. Some “soft” arguments: end of postponement, children make happy, governments will eventually do “something”. But at the same time the basic forces that brought down fertility continue to work, possibly even stronger (value change, globalization, youth unemployment).
- **Proposing an hypothesis that can be tested.** Put on the table a plausible reasoning that would result in a future of still lower fertility. Not a matter of believe, but the scientific method of testing well specified hypotheses.

Background “Low Fertility Trap” Hypothesis

- In the context of a paper on tempo policies (PDR, December 2005) we started to think in what context a short-term upward kick in fertility would make a real difference.
- In a May 05 seminar on low fertility in Asia Peter MacDonald presented his view that a TFR of 1.5 presents some kind of a watershed. Once a country falls below that level it is much harder to come back up above that level than trying to stay above that level.
- Idea of non-linear relationship between government efforts and fertility response (different from Gauthier and others). Idea of a “demographic regime change” (Rindfuss et al. on marriage in Japan).

Is it justified to speak of a “trap”?

Three criteria for a “trap”:

- Unpleasant situation that governments would rather not be in.
- Something that was entered unintentionally
- Something that is difficult (if not impossible) to get out of.

Basic Idea:

Once fertility falls below a certain level and stays there for a while it can imply a self-reinforcing demographic regime change that is difficult or impossible to reverse.

Three possible self-reinforcing mechanisms that could lead to such a situation:

- **LFT-1: Demographic:** Negative Momentum
- **LFT-2: Normative/Ideational:** If actual fertility is lower, norms of the next generation will be lower (Goldstein et al., Testa et al.)
- **LFT-3: Economic:** First part of Easterlin's Relative Income Hypothesis

Easterlin's Relative Income Hypothesis

- Two parts:
- (a) fertility is the result of the relationship between personal aspirations and expected income
- (b) smaller cohort size will lead to better labor market situation and therefore to higher expected income
- Alternative (b): low fertility leads to prospect of ageing, cuts in social benefits, general pessimism about the future and hence low expected income.

Personal Ideal Family Size

Cohort Fertility

Period Fertility

Number of Births

Consumption Aspiration of Young

Number of People with Young Children

Increasing gap aspirations/ income

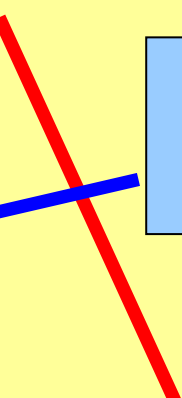
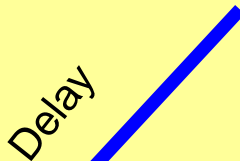
Less Social Security for Young
Lower Economic Growth

Age Structure Ageing

LFT3

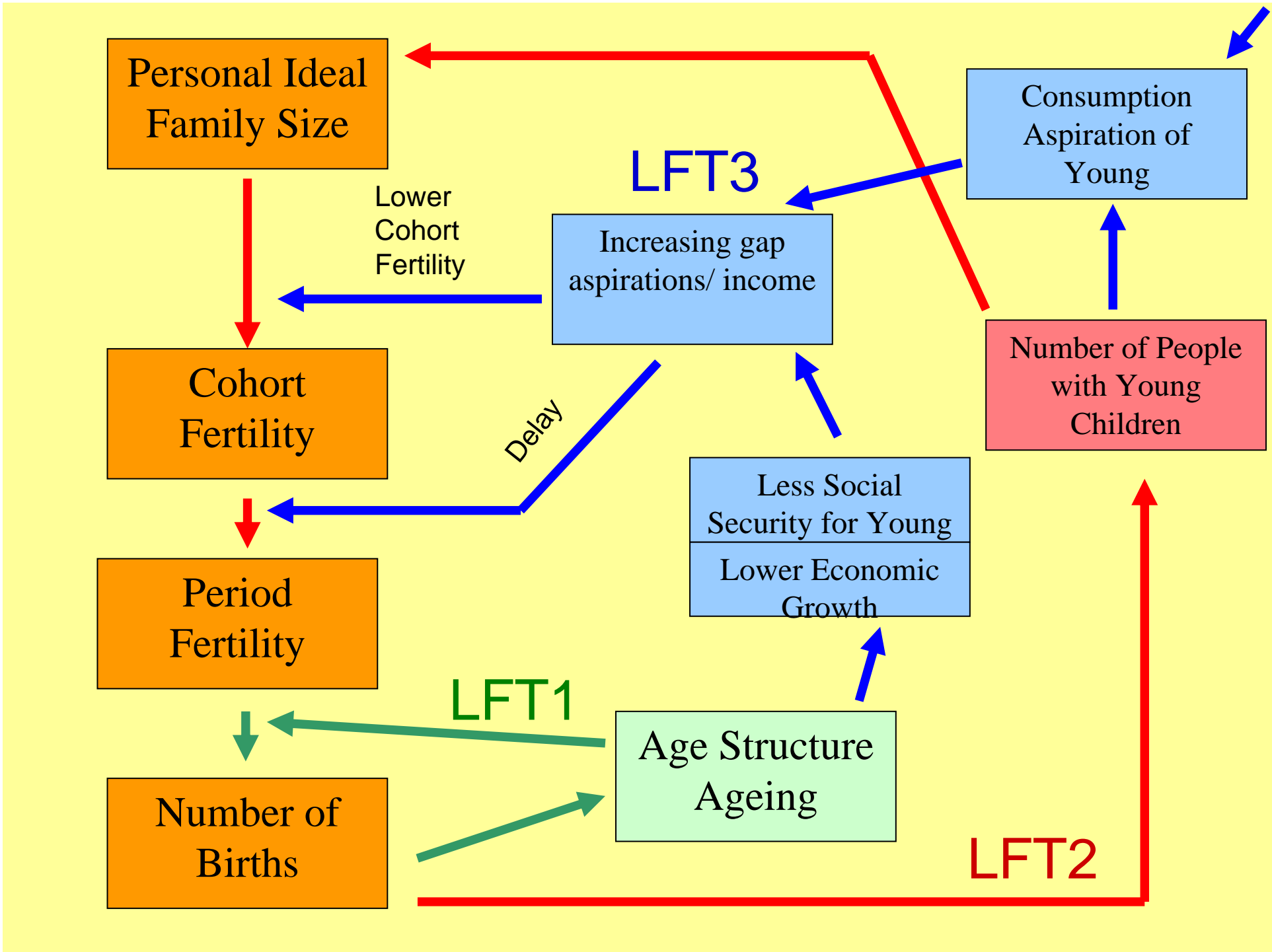
LFT1

LFT2

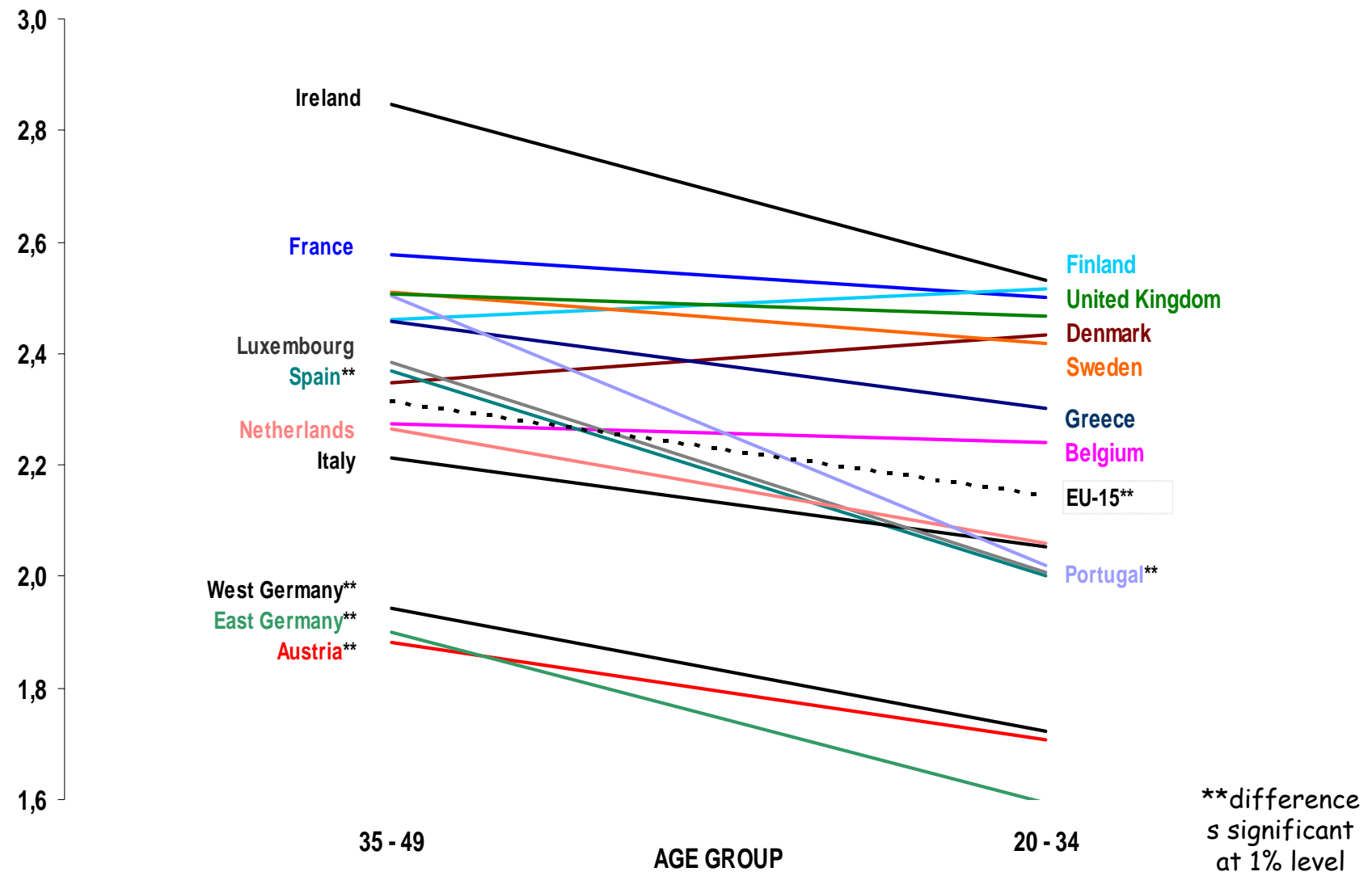


Lower Cohort Fertility

Delay



MEAN PERSONAL IDEAL FAMILY SIZE OF WOMEN BY AGE GROUP AND COUNTRY



Data Source: Eurobarometer, 2001

Downward spiral in ideal family size

- Rindfuss et al. (2004, p. 855): “Changes in attitudes likely create a feedback mechanism, influencing behavior; and changes in behavior likely create a feedback mechanism influencing attitudes.”
- Here the argument would go as follows: Once the number of children (siblings, friends, children seen in other families, media) experienced during the process of socialization falls below a certain level, the own ideal family size would become lower which in course may result in further declining actual family size and still lower ideals in the subsequent generation.

Will Ageing Decrease Economic Growth?

– Ageing Could Worsen Labour Market Outcomes:

- Fewer firm startups. Most entrepreneurial activity by educated individuals aged 25-44 (Global Entrepreneurship Monitor 2005, result holds for all 34 countries surveyed)
- Ageing and could mean less employment, as firms may relocate to areas with higher number of labour market entrants (Shimer *QJE* 2001, Skans *Economics Letters* 2005)
- More pensioners increases workforce's tax burden (OECD 2004)
- Capital flows increase from ageing to younger countries, lowering home production (Reisen 2002)
- Increasing international trade may imply production shift away from low fertility countries

Widening Aspirations Income Gap?

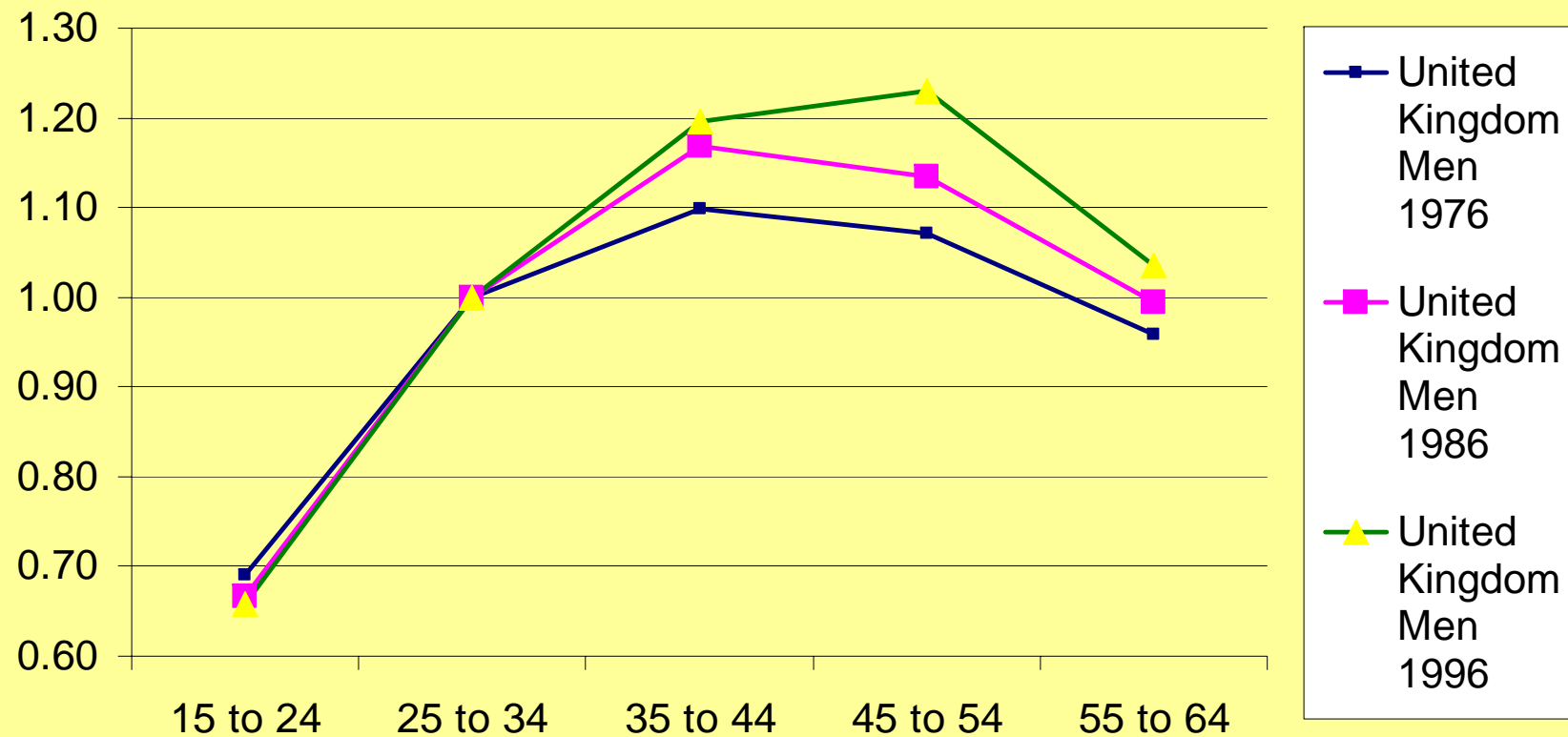
– Higher Establishment Costs

- Real housing prices doubled or tripled last decade in Oslo, London and Stockholm and may further increase if older invest in housing (ECB 2003)
- Establishment costs may rise in effect of more older voters, which could decrease education spending and housing subsidies

– Lower Income

- Youth unemployment high and labour market situation at least in some countries perceived to worsen (OECD 2005, Eckersley 1998)
- Young earn less than older individuals (OECD 2004)

Age-Earnings Curves



Source: ONS 2003

Homeostasis

- Viewed under a long-term perspective, the demographic transition taught us that the balance of births and deaths (if we assume that systems eventually will move towards homeostasis) can be disturbed for many decades due to the fact that fertility is strongly embedded in the **system of social norms** and that such demographic regimes can be very persistent once they are well established.
- Because of this we have seen many decades of “**overshooting**” birth rates that have resulted in historically unprecedented population growth. It cannot be ruled out that the same forces of social momentum, once a new low fertility regime has been established, will result in decades of “**undershooting**” birth rates resulting in historically unprecedented population ageing.

Questions

Is it a plausible hypothesis ?

How can the hypothesis be tested ?

- LFT-1: Accounting truism
- LFT-2: Eurobarometer June 2006
- LFT-3: More analysis on expected fertility, aspirations for consumption and expected income.