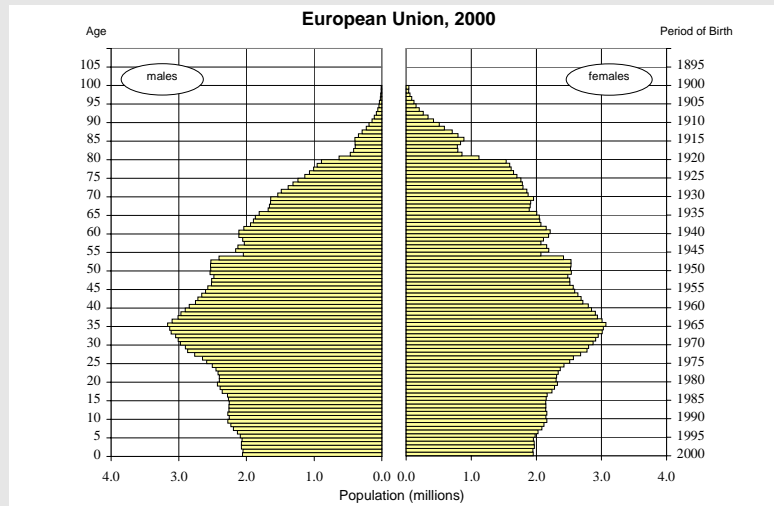


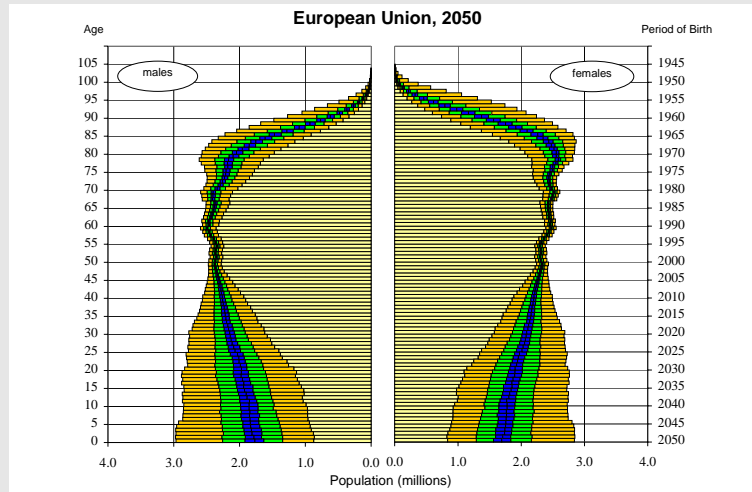
# Emerging Demographic Issues in and for Europe:

The consequences of delayed childbearing

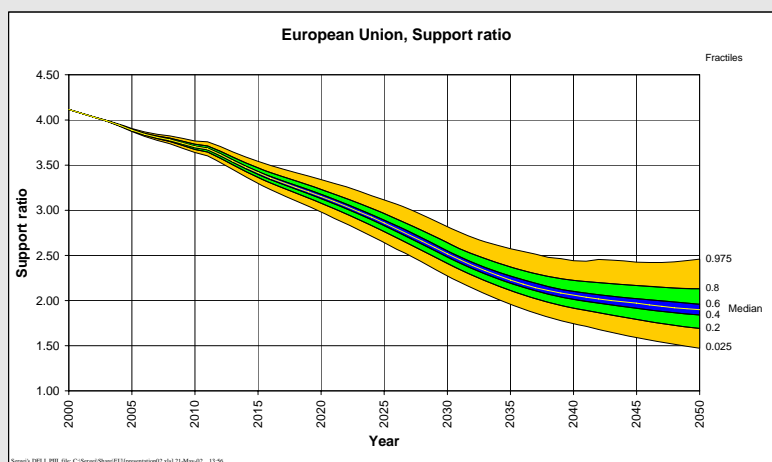
## Age Pyramid EU-15



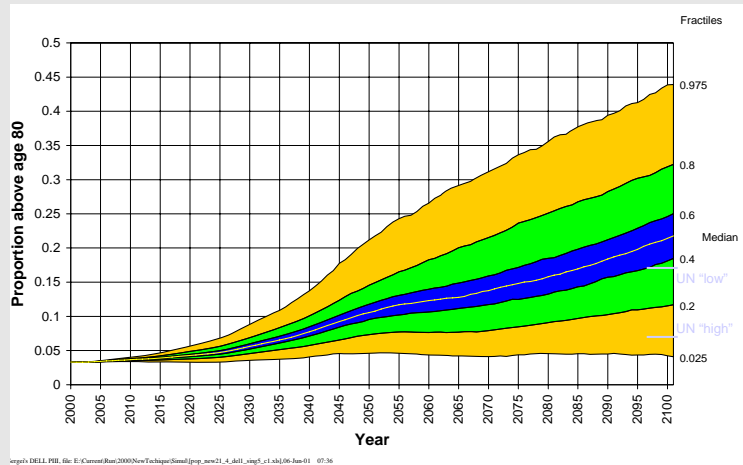
## Age Pyramid EU-15



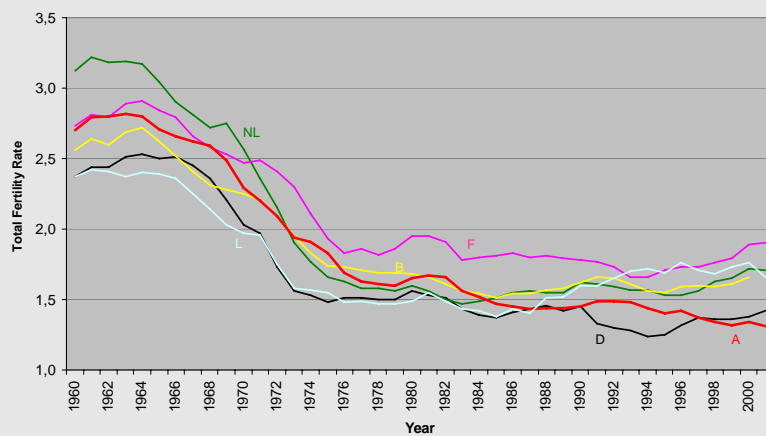
## EU-15, uncertainty distribution support ratio

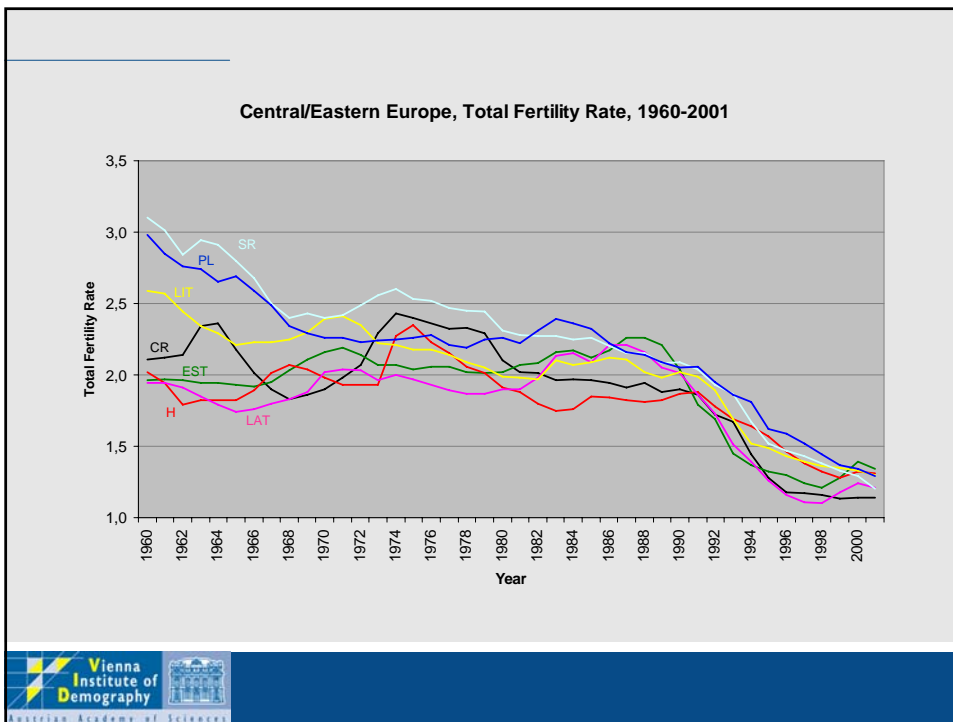
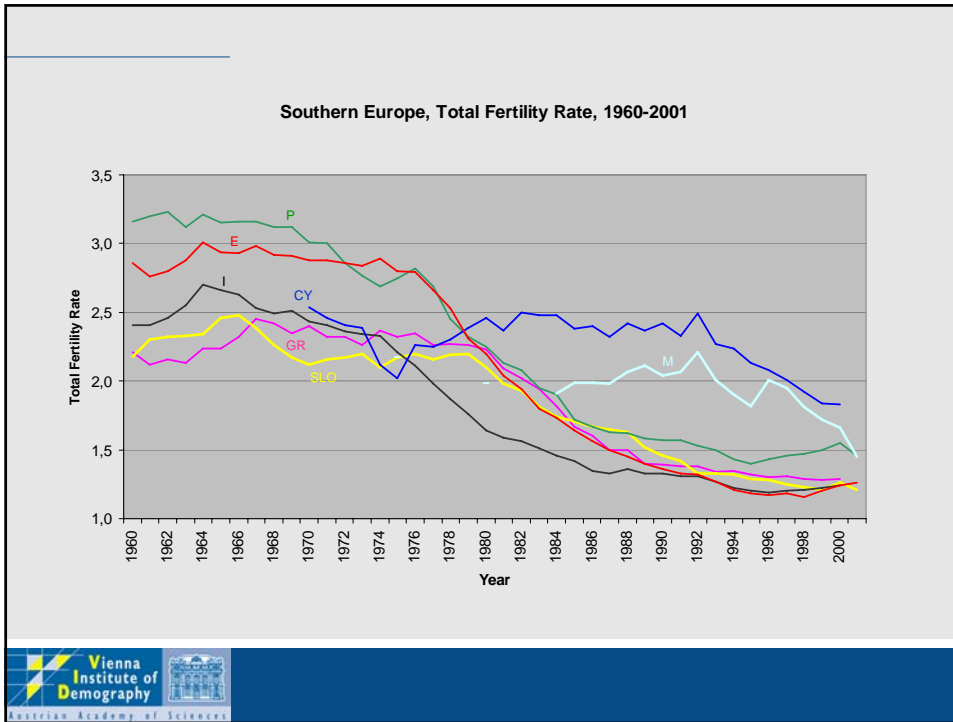


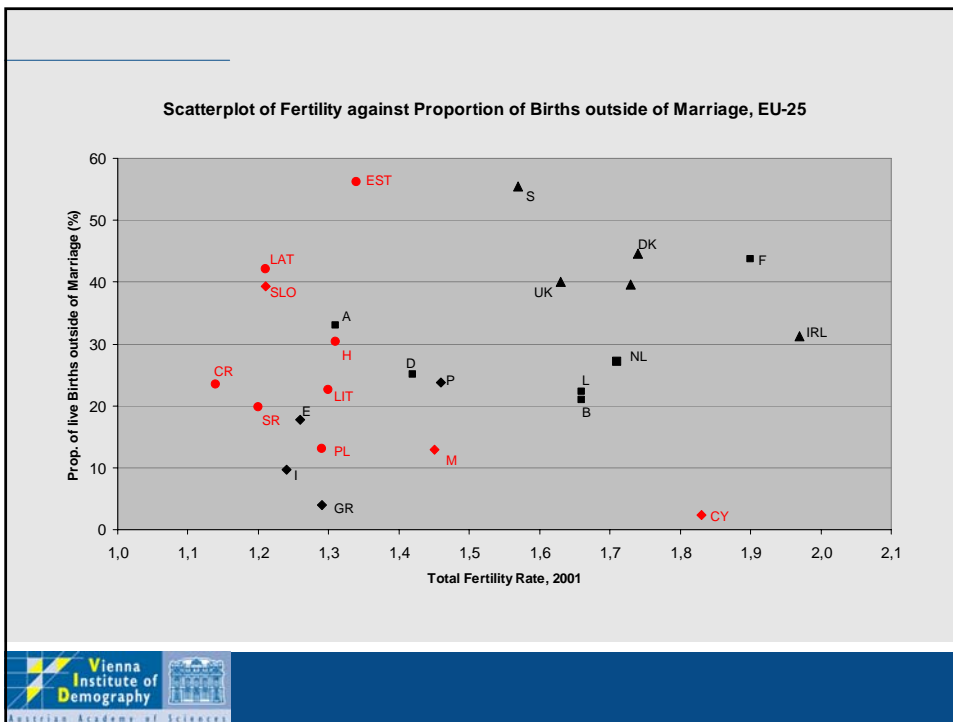
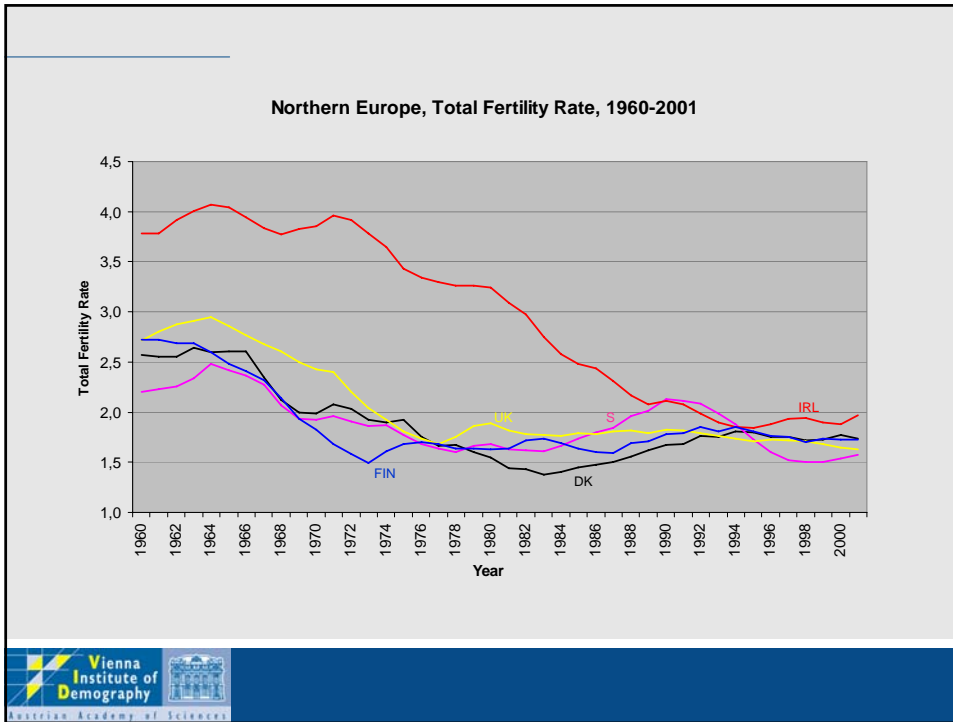
## Western Europe, uncertainty distribution of the proportion above age 80.



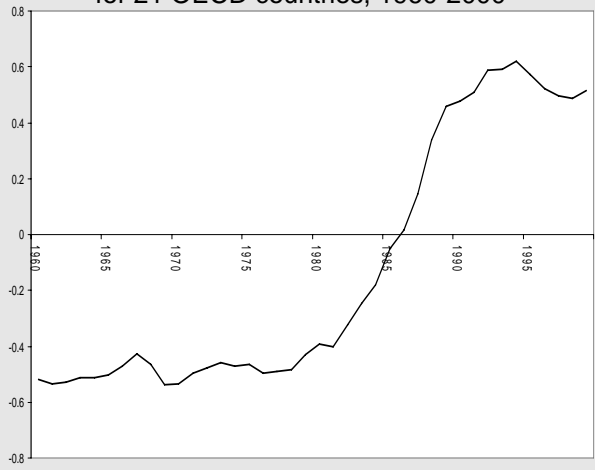
## Western Europe, Total Fertility Rate, 1960-2001



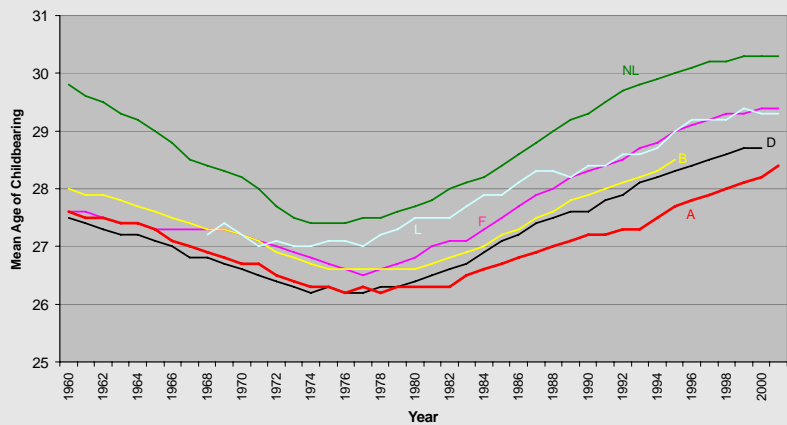


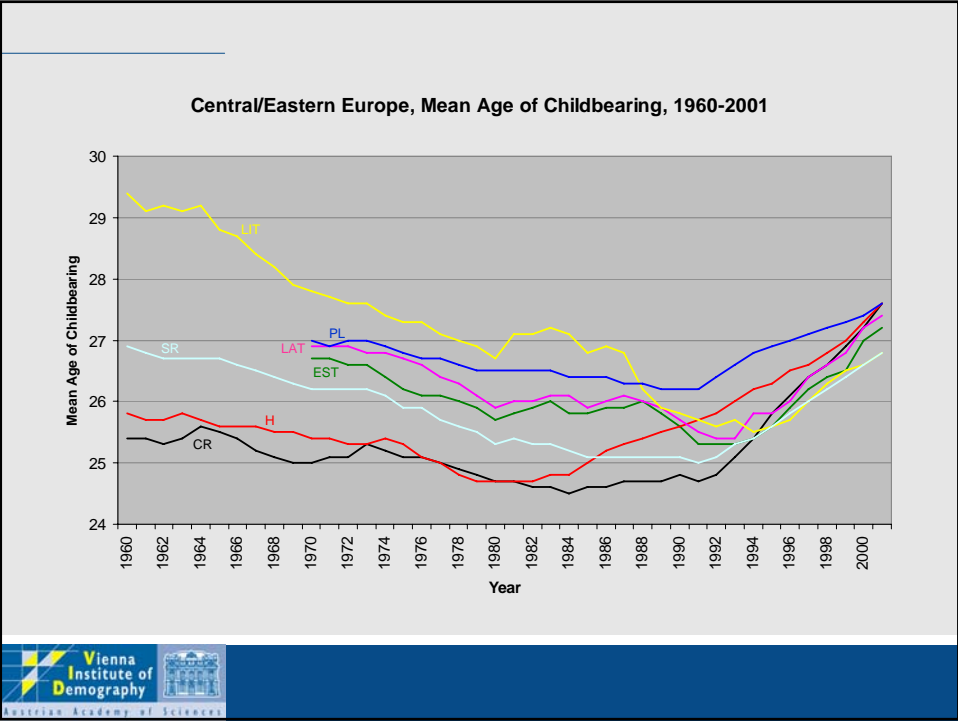
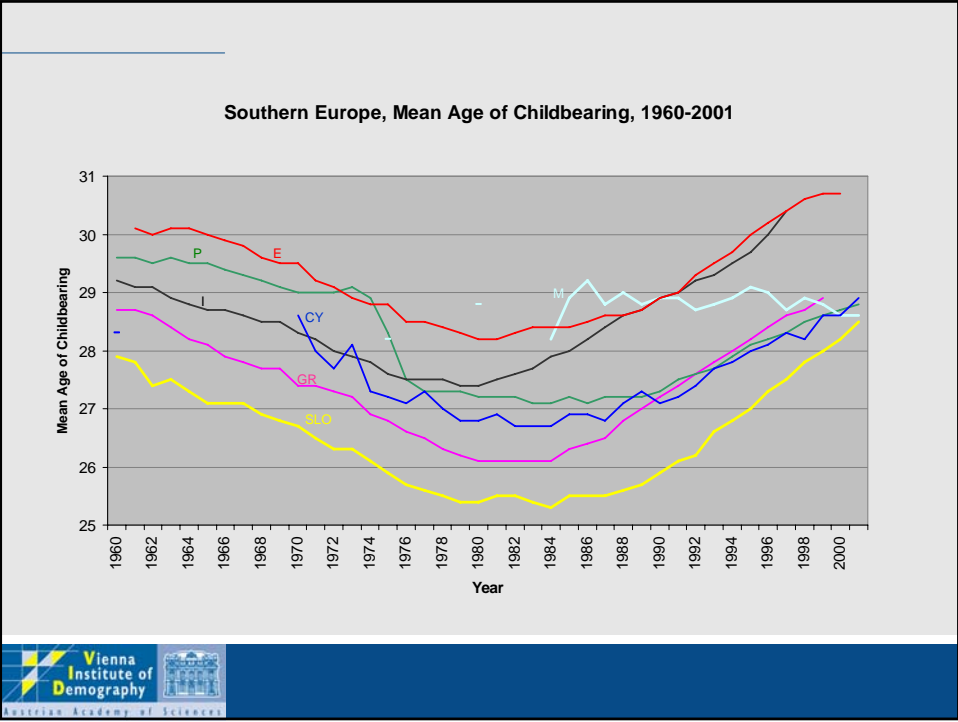


### Cross-country correlation between Total Fertility Rate and Female Labour Force Participation Rate for 21 OECD countries, 1960-2000



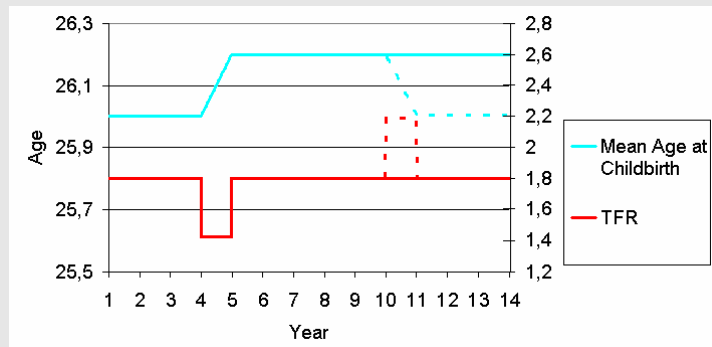
### Western Europe, Mean Age of Childbearing, 1960-2001





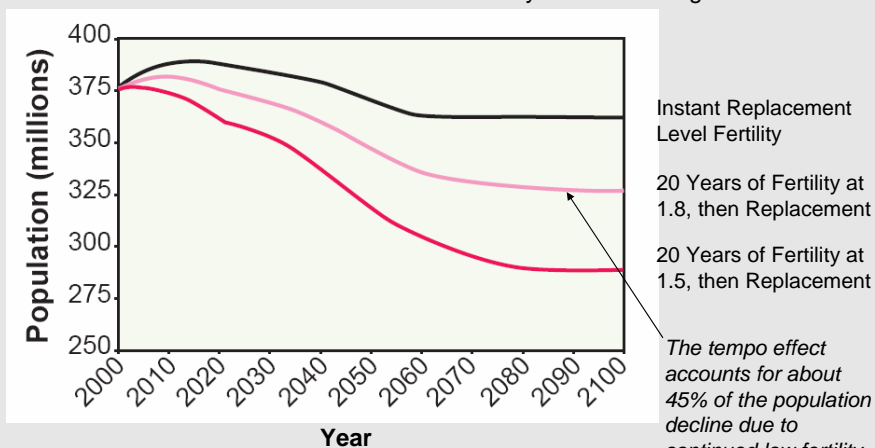
## Birth Deficit due to the Tempo Effect

An increase in the mean age of childbearing results in a lasting loss of births, unless the childbearing age decreases again

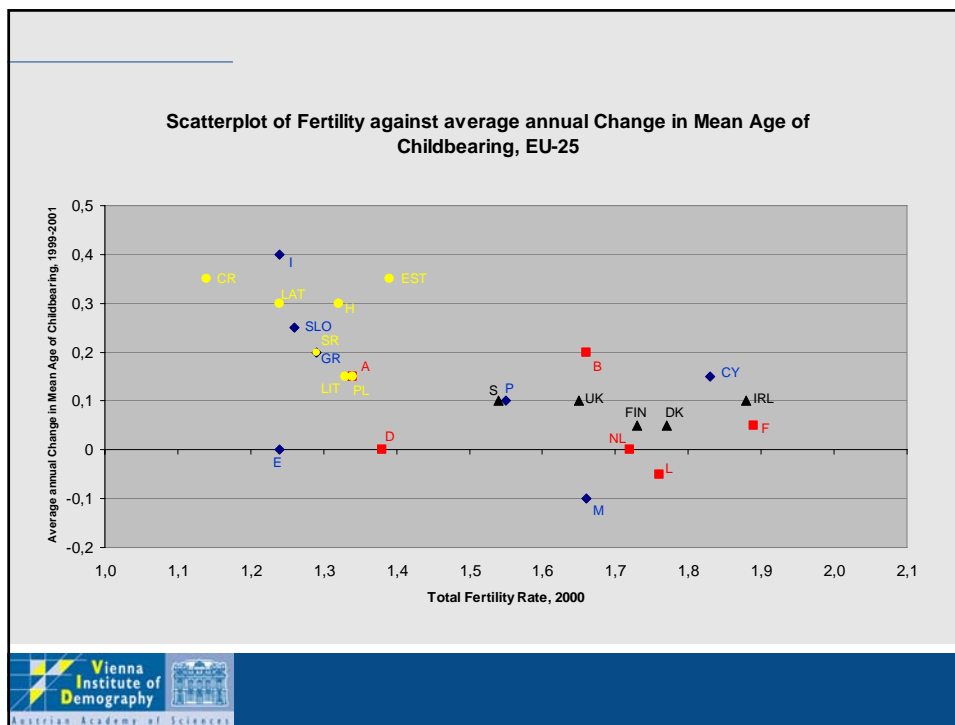


## EU-15 Population Scenarios

All scenarios assume constant mortality and no net migration.

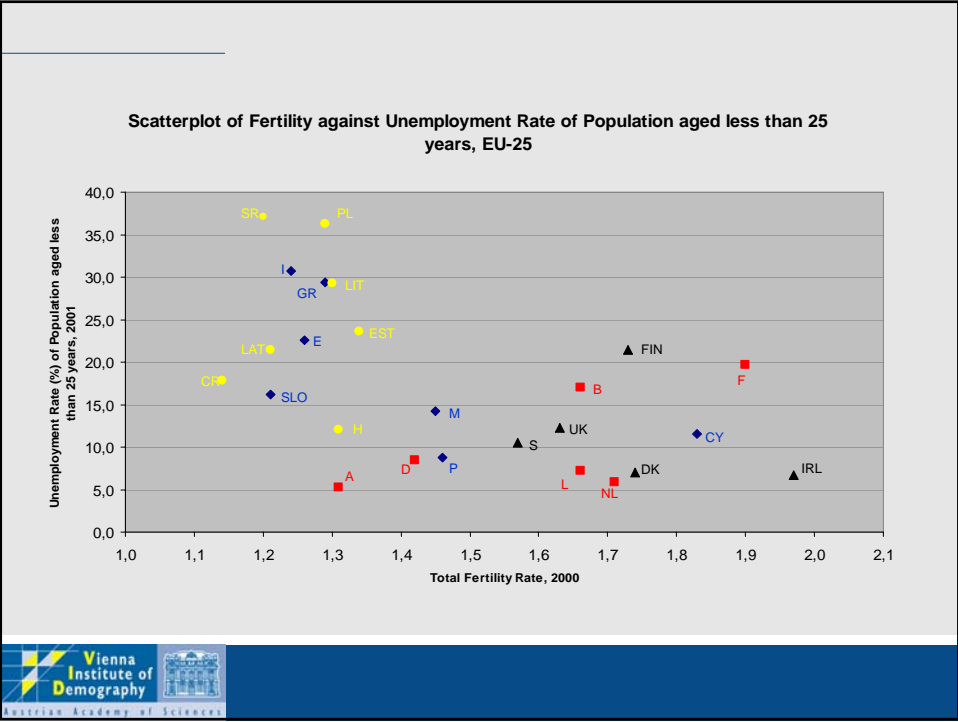
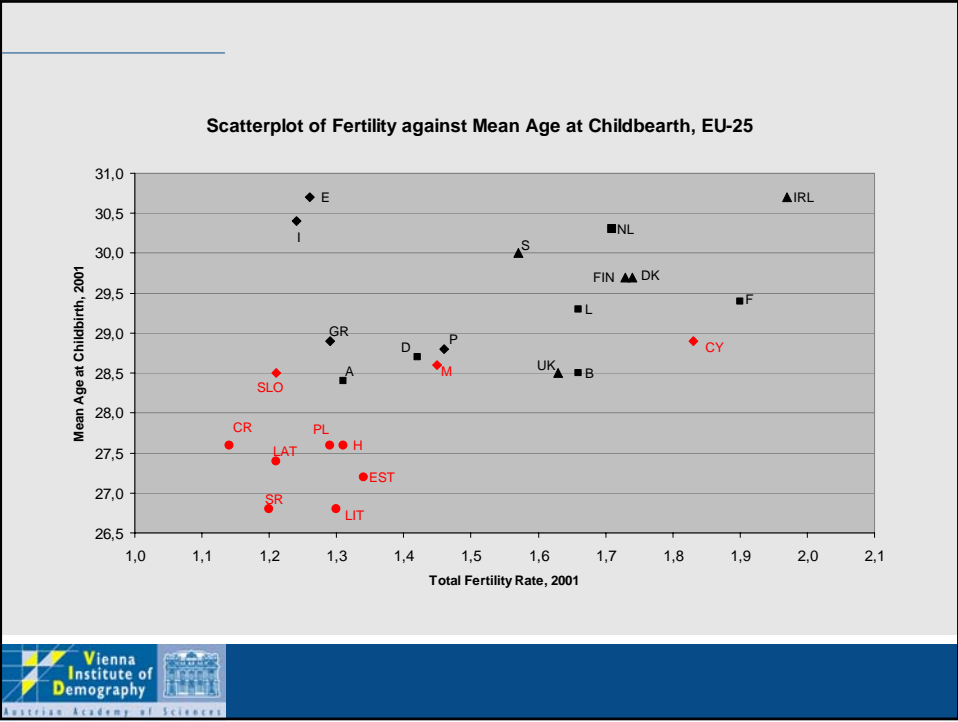


Source: Lutz, O'Neill, & Scherbov, *Science*, 2003.



## Why a policy focus on the tempo of fertility? (1)

- It is well established that in a period when the mean age of childbearing increases, the period TFR is depressed relative to what it would be without such an increase.
- So far the tempo effect has been mostly considered as an **undesired disturbance** that needs to be ironed out (tempo-adjusted fertility rates) in order to have a purer measure.
- The tempo effect greatly matters for the number of births born in any given year. It has a **lasting effect** on the age structure and size of a population.
- Tempo policies aim at **influencing the tempo effect** and its lasting impacts on population dynamics.



## Why a policy focus on the tempo of fertility? (2)

- While choice of **family size** (quantum) is largely considered a **private matter**, where direct government interference is not welcome, a focus on the timing of births might be more favoured, particularly because there is a strong **health rationale** against further delays (risk of not getting pregnant, risks associated with late pregnancies).

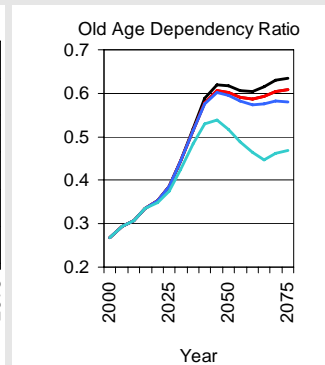
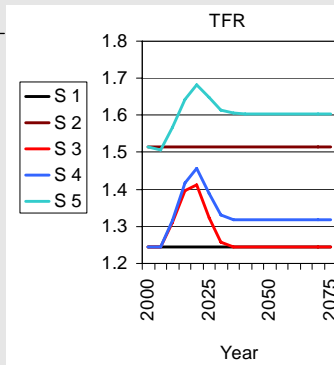
There are essentially two ways of effecting the mean age of childbearing:

**A - Change the typical sequence of life cycle phases** (e.g. having children while still at university)

**B - Shorten the duration of those phases that typically precede childbearing** (e.g. shorten the study time to a certain degree)

## Italy: Fertility Projections

Scenario	Description
S 1	Constant period fertility
S 2	Constant tempo adjusted fertility
S 3	School reform
S 4	School reform with quantum effect
S 5	School reform with quantum effect on top of the S 2 scenario



**Alternative Projections of the Old Age Dependency Ratio for the EU-15 in 2050 based on different Fertility and Migration Assumptions**  
 (Black line gives the level in 2000)

