

Demographic Trends and Implications for Development

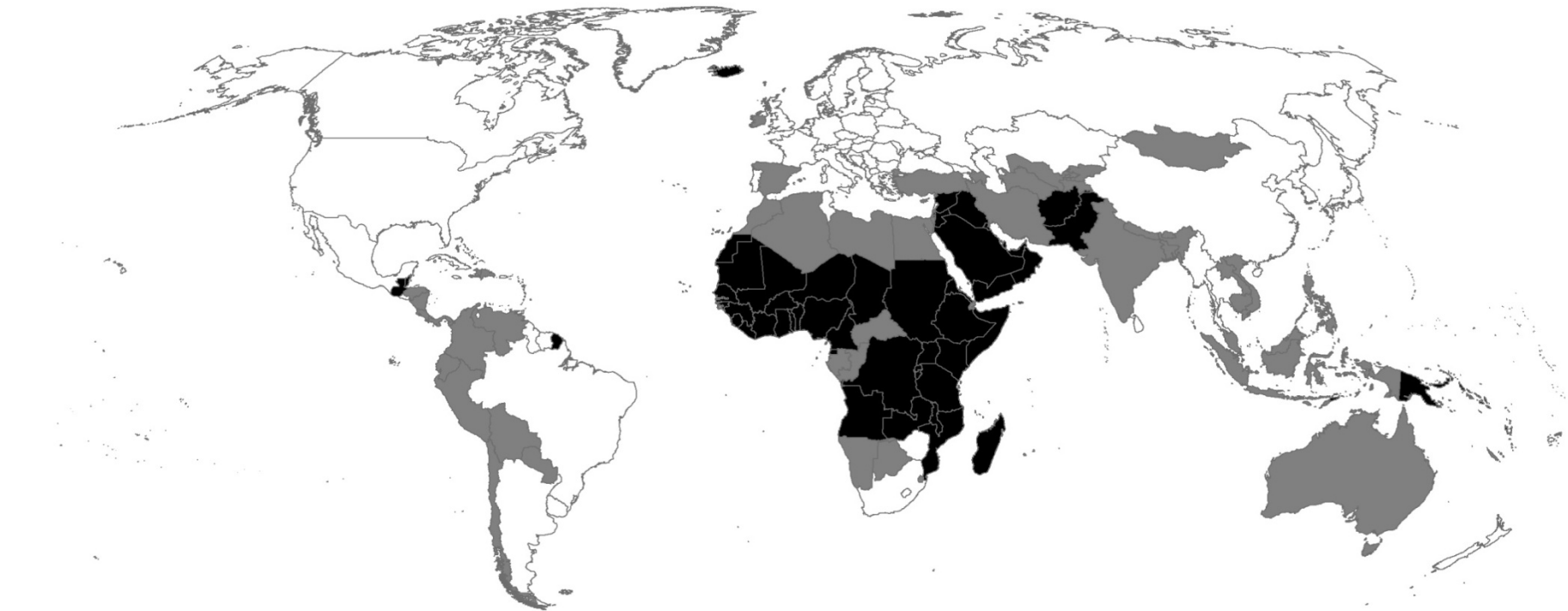
John Bongaarts

Population Council

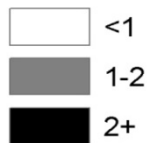
Outline

- **Background: population growth and fertility**
- **Consequences of demographic trends**
- **Policy options**

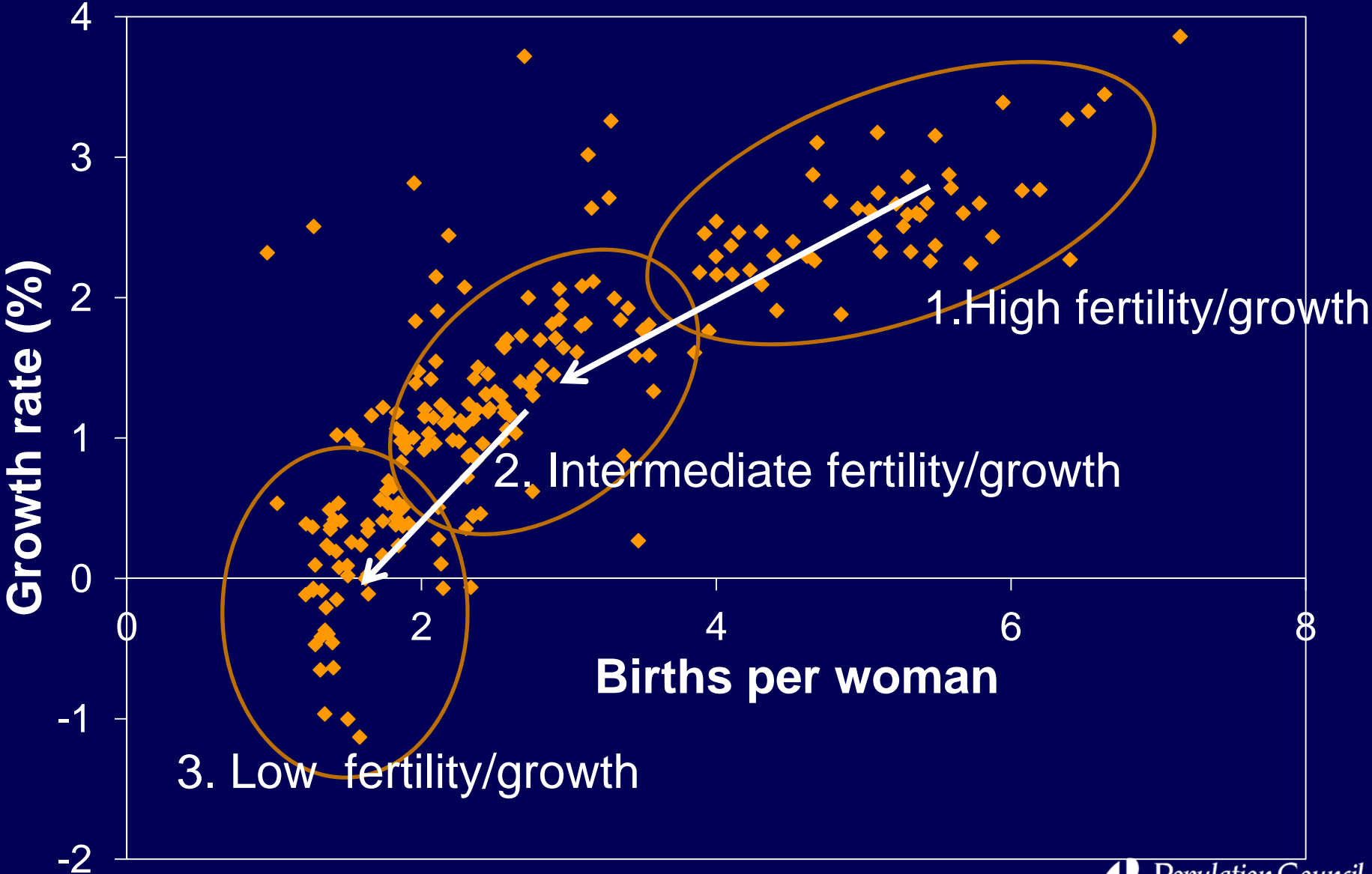
Population growth rates 2005-2010



Population Growth Rate
(% per year) 2005-2010



Population growth by fertility level

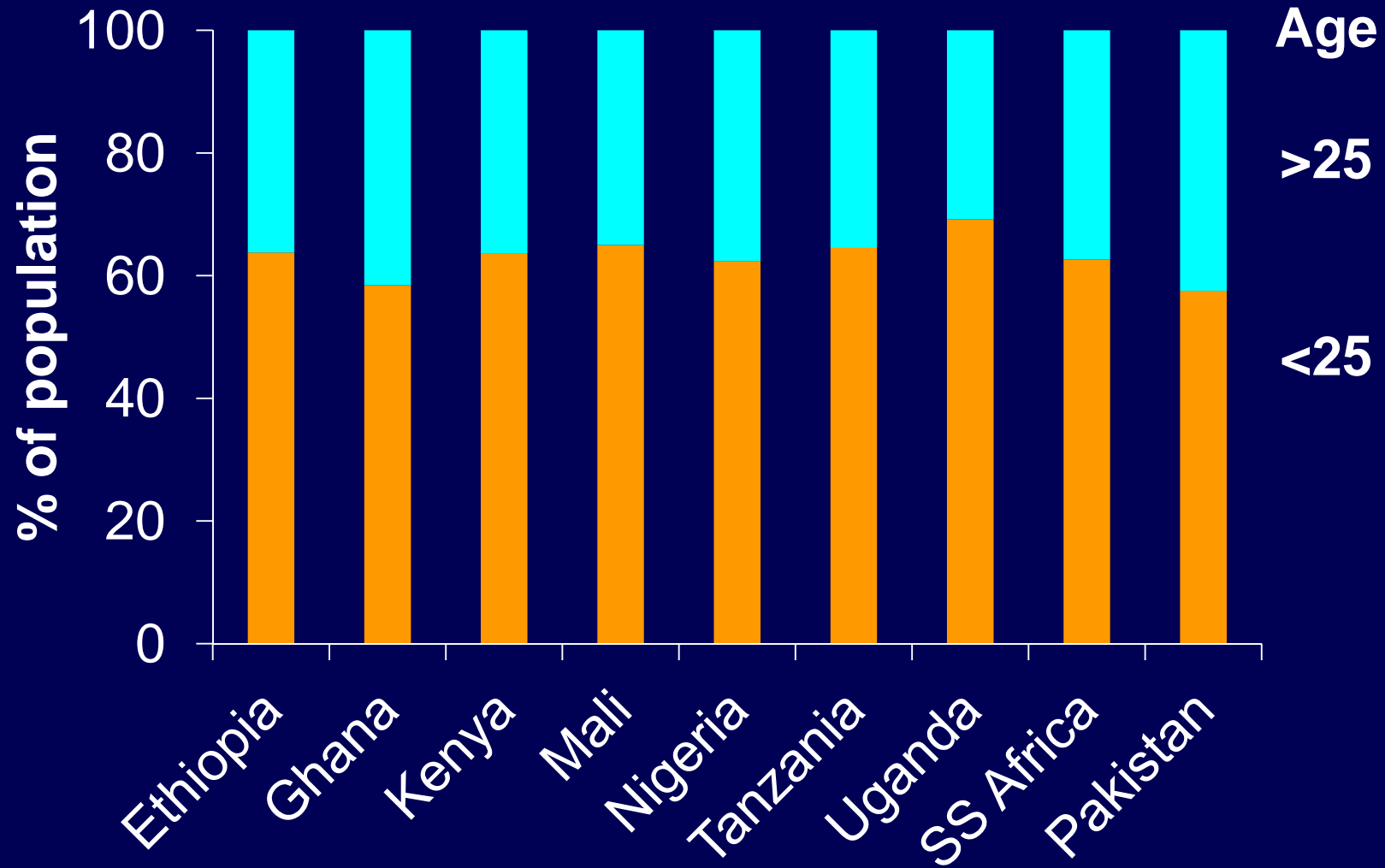


Group 1

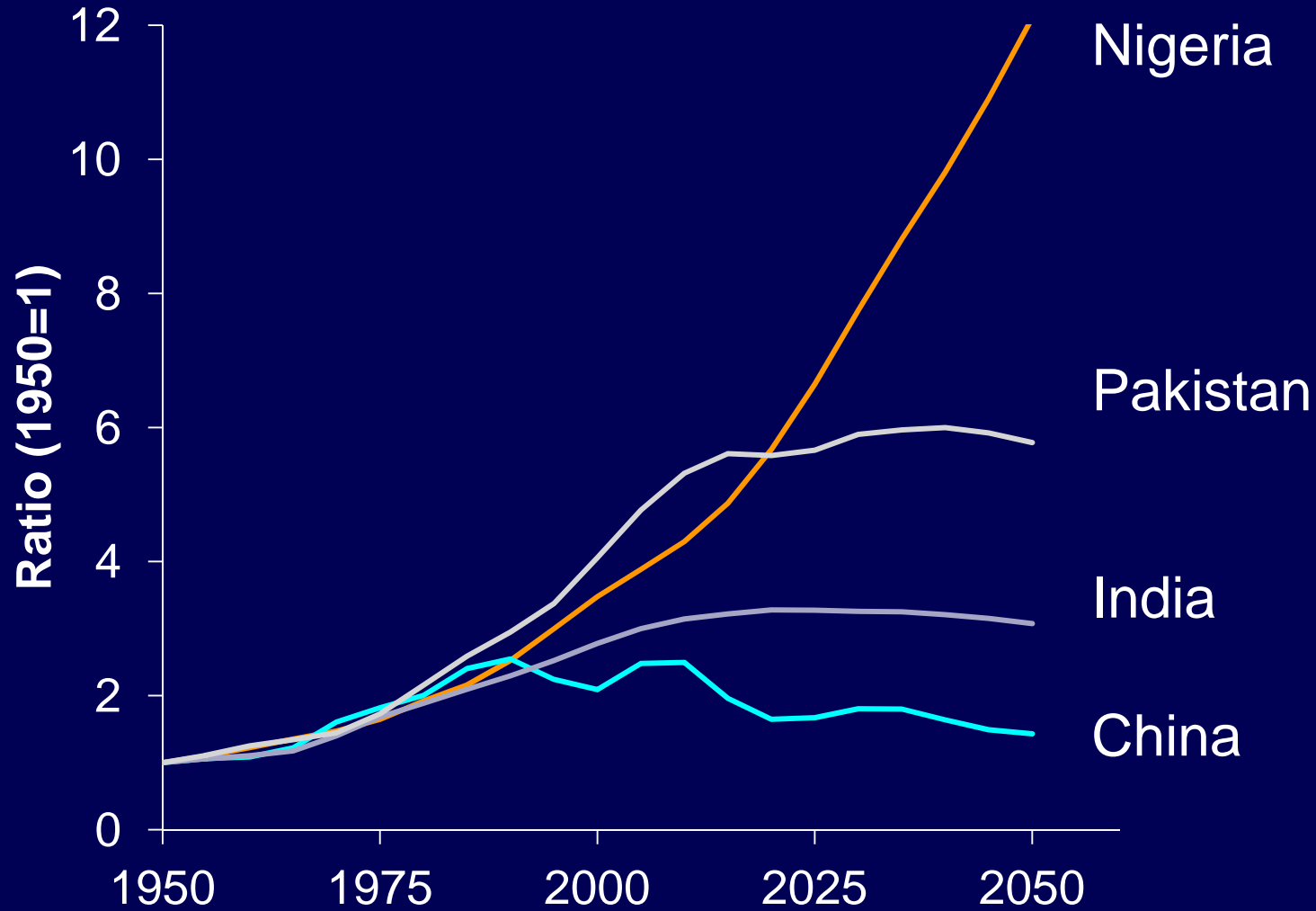
Demographic consequences of high fertility

- Rapid population growth
- Young age structure

Population by age (<25,>25)



Youth (15-25) by country



Group1: Consequences of High fertility and rapid population growth

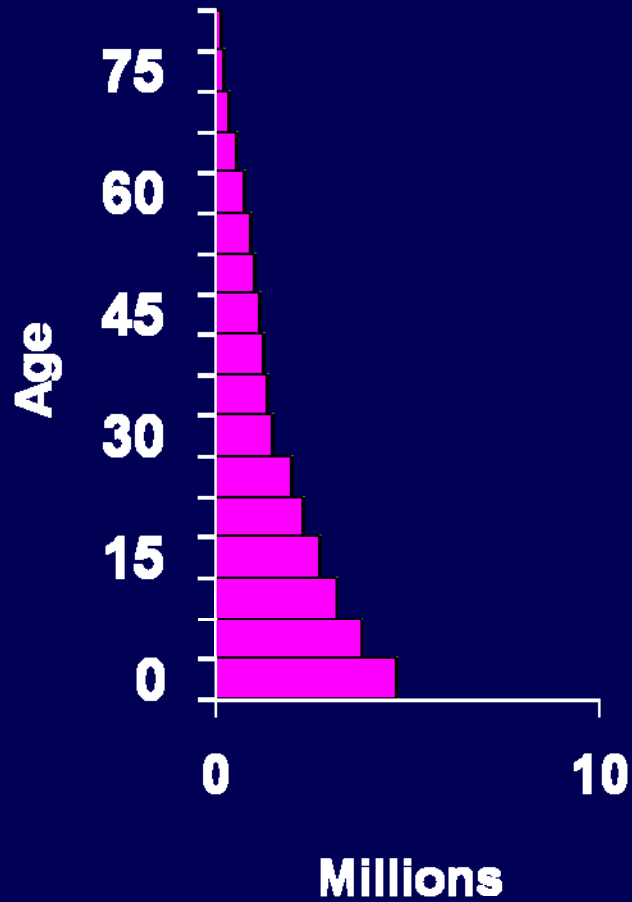
- Economic: Low wages, unemployment, poverty
- Environmental: Depletion of natural resources, pollution
- Health: High maternal and child mortality
- Governmental: Lagging investment in education, health services and infrastructure
- Political: Rising political unrest and crime

Group 2: Intermediate/ declining fertility

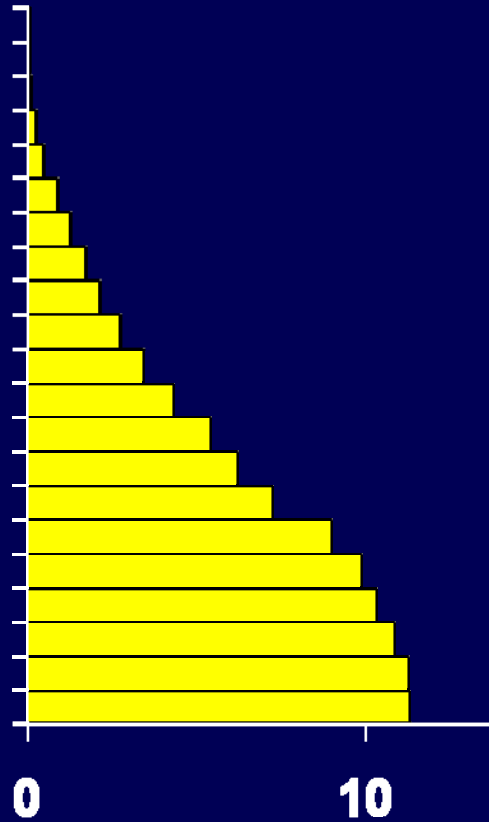
- **Declining population growth rates**
- **Fewer young people, more workers**
- **Demographic dividend**

Population by age: Mexico

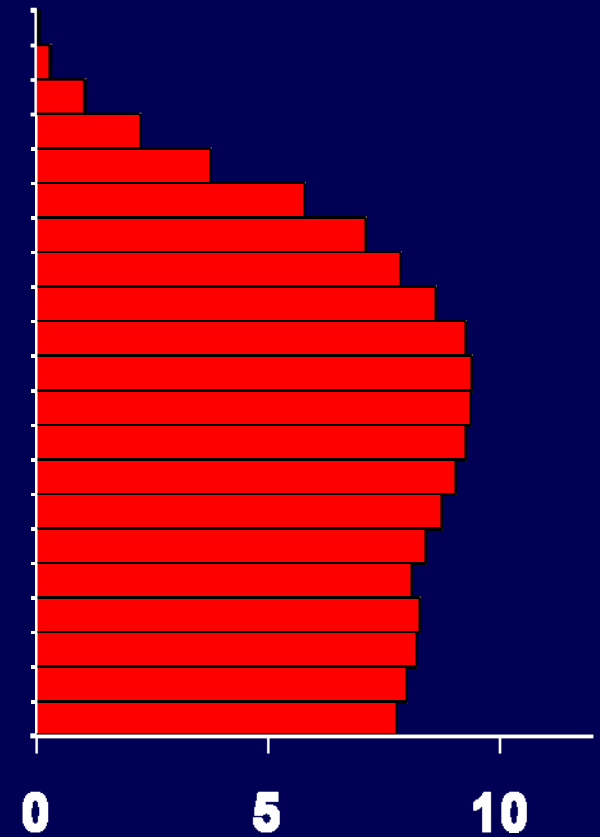
1950



2000



2050

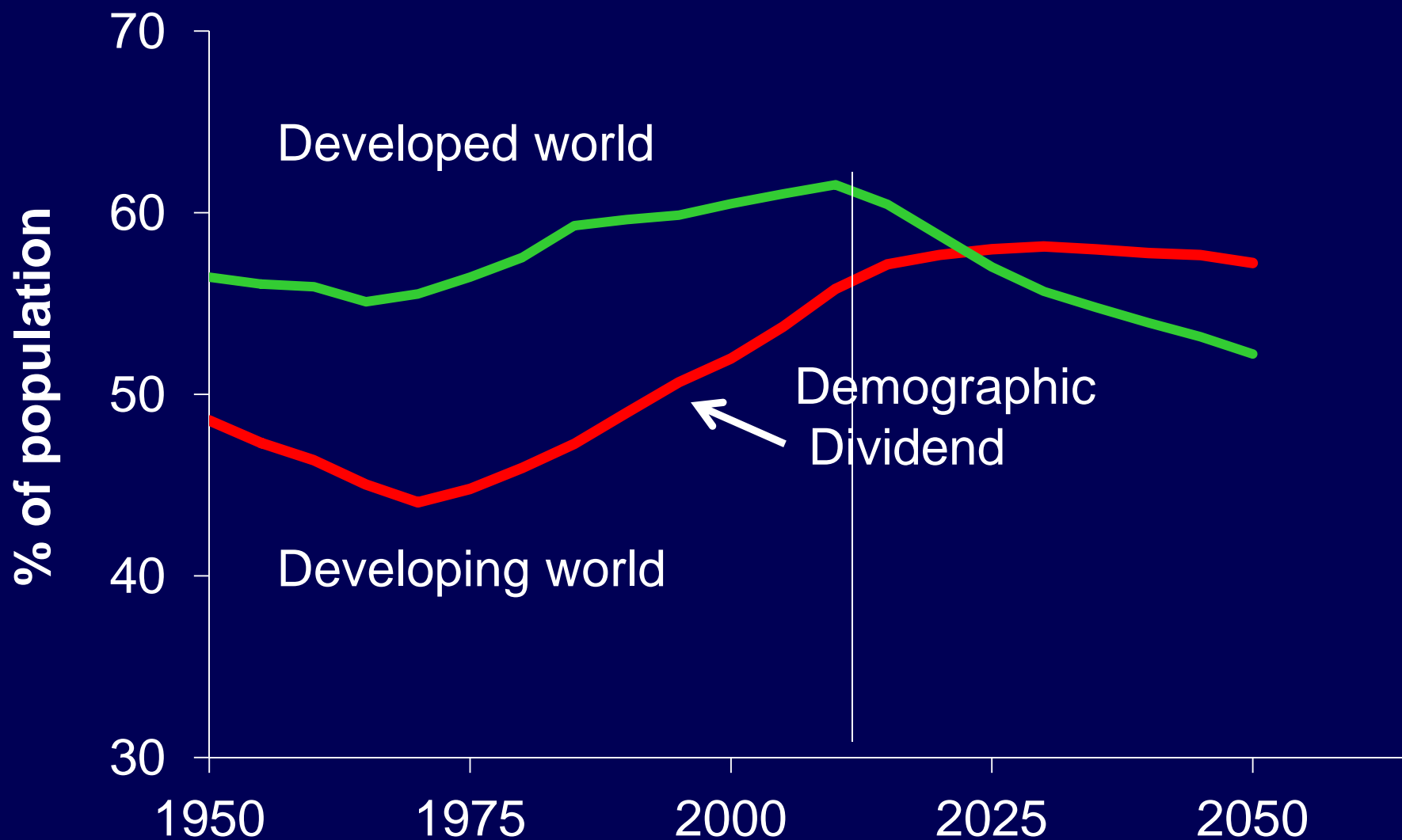


Demographic Dividend:

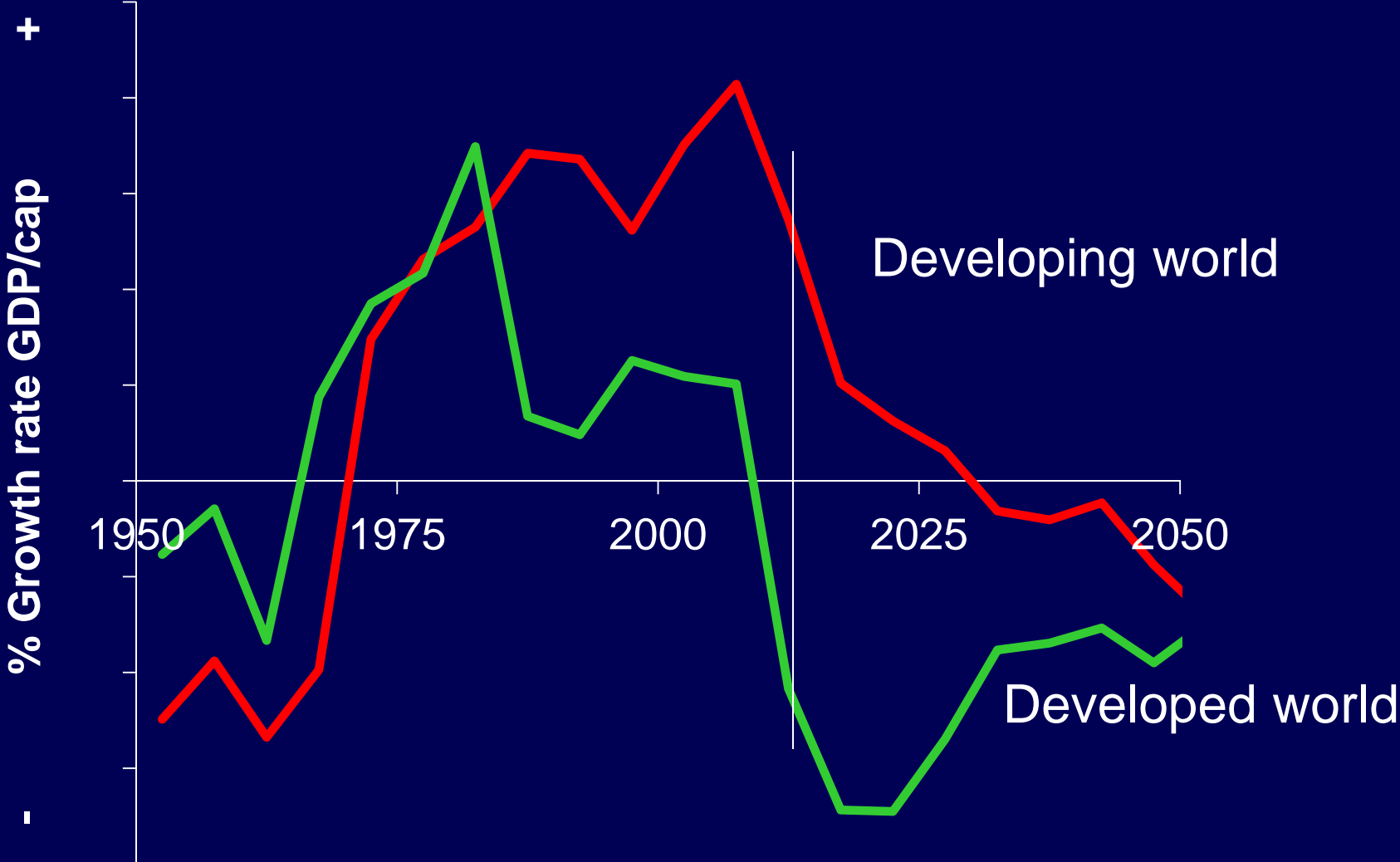
Boosts growth in GDP/cap by raising

- 1) Relative size of workforce
- 2) Women's participation in paid labor force
- 3) Investments in human and physical capital

Working age population (%)



Impact of demographic dividend on economic growth rate (GDP/cap)



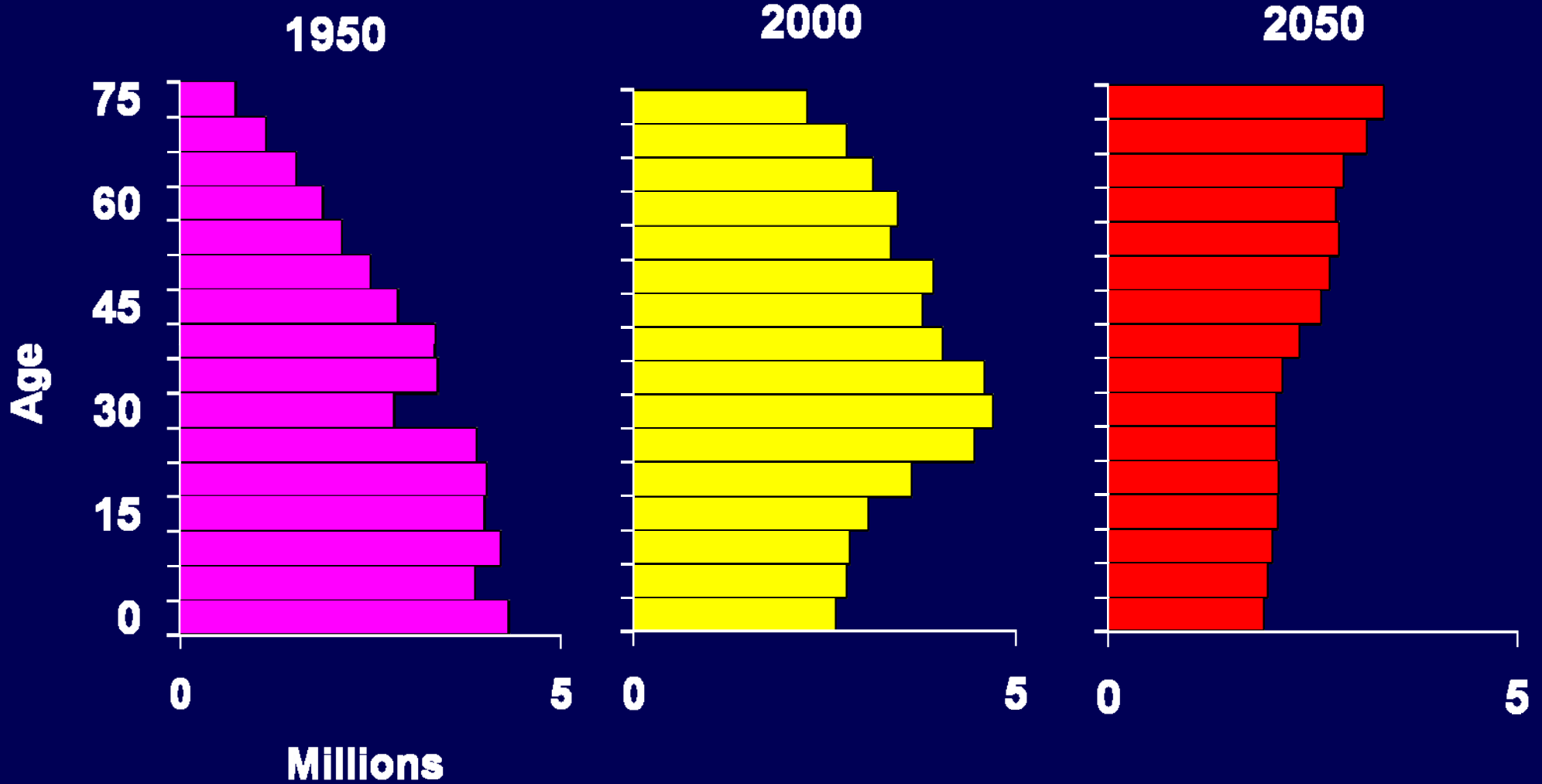
Group 2: Consequences of Intermediate/declining fertility

- Economic: Demographic dividend
- Environmental: Depletion of natural resources, air, water and soil pollution
- Health: Declining maternal and child mortality
- Governmental: Large investments in education, health services and infrastructure
- Political: Inequality and disaffected voters

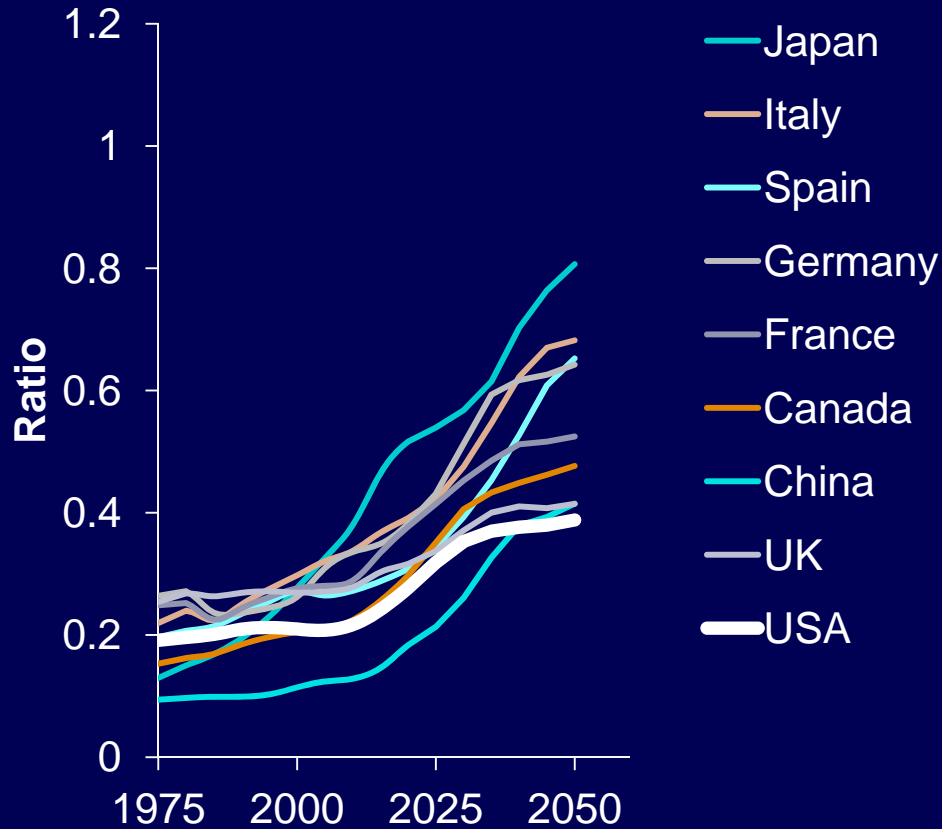
Group 3: Low fertility

- Near zero or negative population growth rates
- Rapid population aging

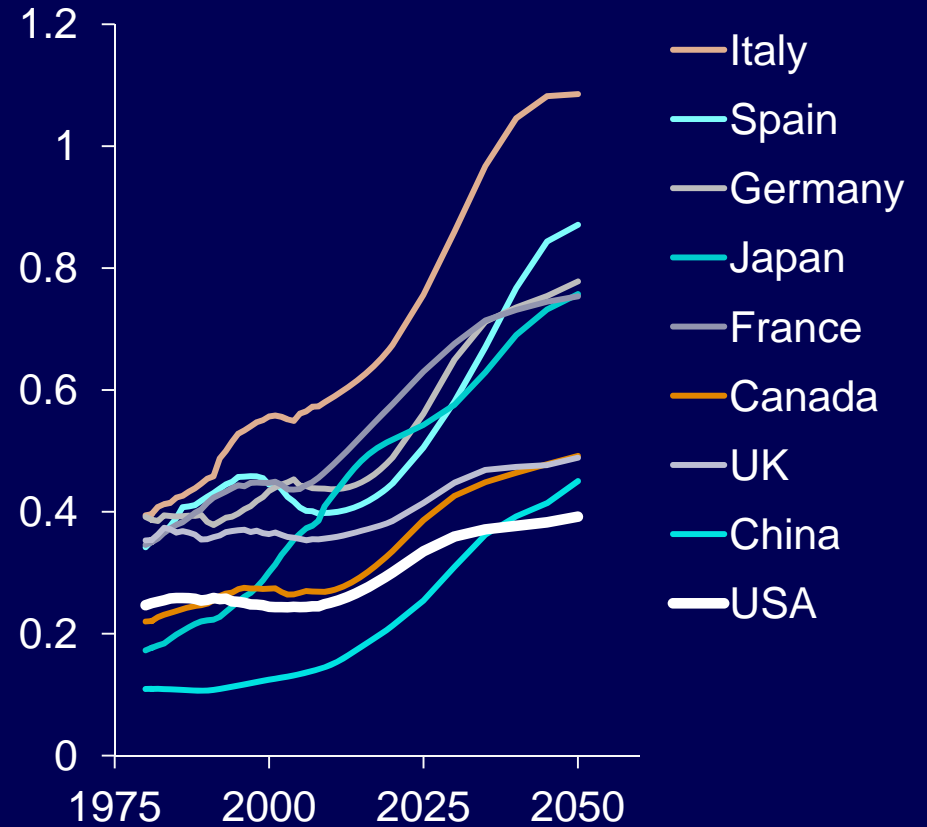
Population by age: Italy



Pop 65+/Pop 20-64



Retirees/Worker



Group 3: Consequences of low fertility

- Economic
 - Slower economic growth
 - Slower growth in GDP/cap
 - Slower growth in worker productivity (?)
- Governmental
 - Unsustainable health and pension costs
 - Rising governmental budget deficits
- Political
 - Rising voting power of the elderly

Policy options :

A. High fertility countries

B. Very low fertility countries

A. Policy options in high fertility countries:

- **Family planning programs to reduce unplanned pregnancies**
- **Investments in human capital (e.g. girls education)**
- **Delay childbearing**

B. Policy options in aging societies

Pension system options

Reduce benefits; raise contributions; raise age at eligibility; encourage private savings.

Labor force options

Encourage higher labor force participation and later age at retirement.

Demographic options

Encourage childbearing; permit more immigration.

Conclusions

- Very high and very low fertility have net adverse effects
- Declining high fertility brings multiple benefits for human welfare and the environment
- Policies are available to maximize positive effects and minimize negative effects