

Central European Forum  
for Migration Research



Środkowoeuropejskie Forum  
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# Selected socio-economic implications of demographic and labour force changes in Europe in the first half of the 21st century

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## Plan of the presentation

1. Introduction
2. Impact of population ageing on the economy and social cohesion
3. Population and labour force forecasts, 2002–2052
4. Is “replacement migration” a remedy for population ageing and decline?
5. Alternative policy options: increase of fertility and economic activity
6. Summary and conclusions



# 1. Introduction

## Aims:

- To present selected socio-economic implications of population and labour force changes in Europe forecasted for the first half of the 21st century
- To illustrate the discussion with empirical results of a study about the impact of migration, fertility and economic activity on the forecasted demographic and labour supply dynamics
- To inform the public debate on plausible policy options to offset negative effects of population and workforce ageing

## Scope:

- 27 European countries: the EU (without Cyprus and Malta), Bulgaria, Romania, Norway and Switzerland
- Time horizon of forecasts: 2002–2052

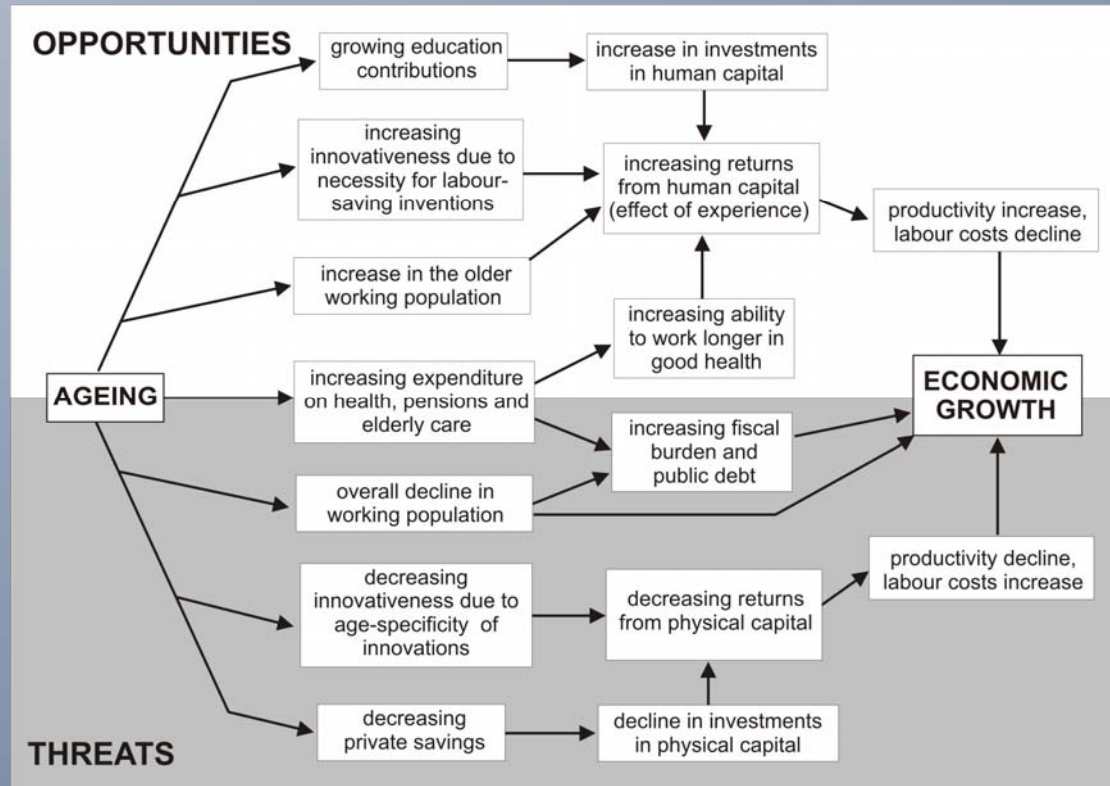


# 1. Introduction

## Background:

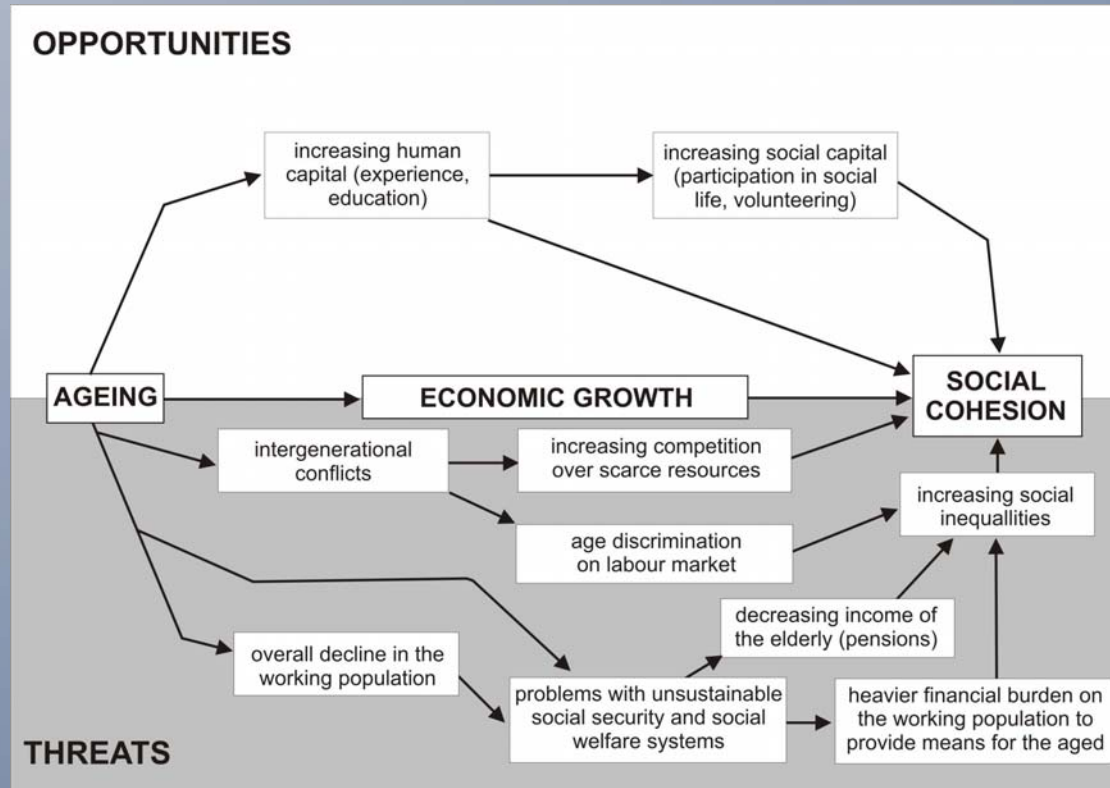
- According to many demographers, the 21st century will likely mark the end of the world population growth (civilisational changes, globalisation...) [Lutz *et al.*, 2004]
- Population ageing is increasingly important, especially in the developed regions like Europe, as it will pose many challenges for the economy and social cohesion (health care, social security...) [Kupiszewski *et al.*, 2005]
- Due to the specificity of population processes, the consequences of current demographic patterns will be observed only in a longer time horizon

## 2. Impact of population ageing on the economy



[Source: Kupiszewski *et al.*, 2005, Figure 5.1]

## 2. Impact of population ageing on social cohesion



[Source: Kupiszewski *et al.*, 2005, Figure 5.2]

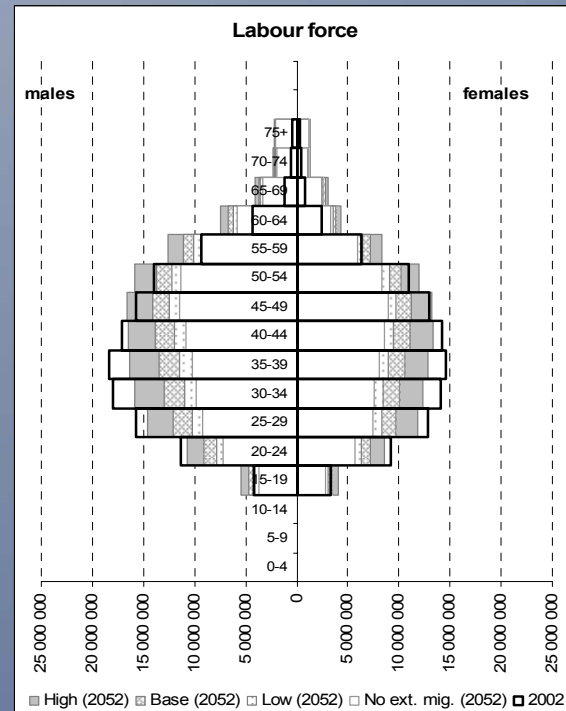
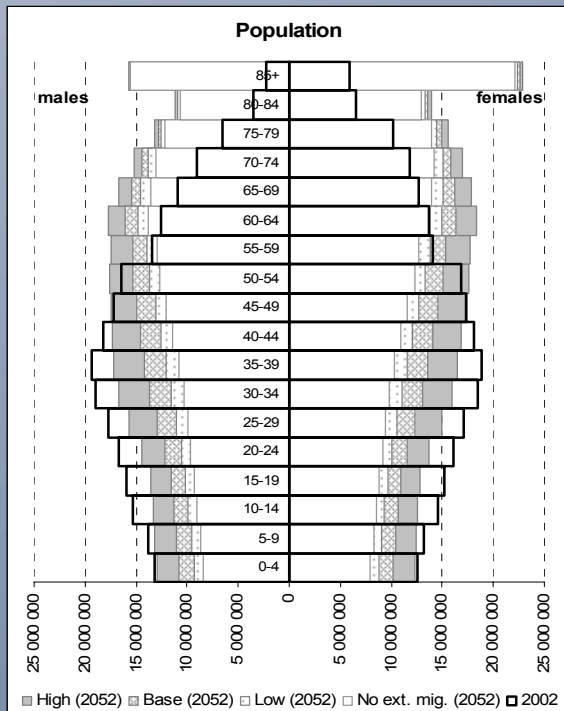
### 3. Population and labour force forecasts, 2002–2052

Selected results for **B**ase, **H**igh and **L**ow migration assumptions

Country	Population (x1000)				Labour force resources (x1000)			
	2002	2052 <b>B</b>	2052 <b>H</b>	2052 <b>L</b>	2002	2052 <b>B</b>	2052 <b>H</b>	2052 <b>L</b>
Belgium	10 333	11 269	12 863	10 161	4 410	4 704	5 564	4 104
Bulgaria	7 869	4 485	5 210	3 769	3 397	1 865	2 259	1 490
France	59 486	70 381	79 189	64 230	26 719	32 096	37 108	28 594
Germany	82 488	77 007	86 093	71 096	40 673	32 907	38 161	29 374
Italy	57 157	54 044	62 813	48 280	22 983	19 440	23 688	16 629
Poland	38 425	31 267	35 988	27 277	17 329	12 931	15 459	10 857
Sweden	8 925	9 993	11 111	9 173	4 526	4 700	5 335	4 234
UK	59 232	65 481	74 353	59 292	29 738	29 325	34 217	25 907
EUR-27	494 179	494 922	562 967	446 928	232 759	209 710	246 600	183 608

### 3. Population and labour force forecasts, 2002–2052

Age structure of population and labour force in 27 countries:  
2002 and 2052 (forecast under various migration scenarios)





### 3. Population and labour force forecasts, 2002–2052

Potential Support Ratio (PSR) in 2052: Base scenario

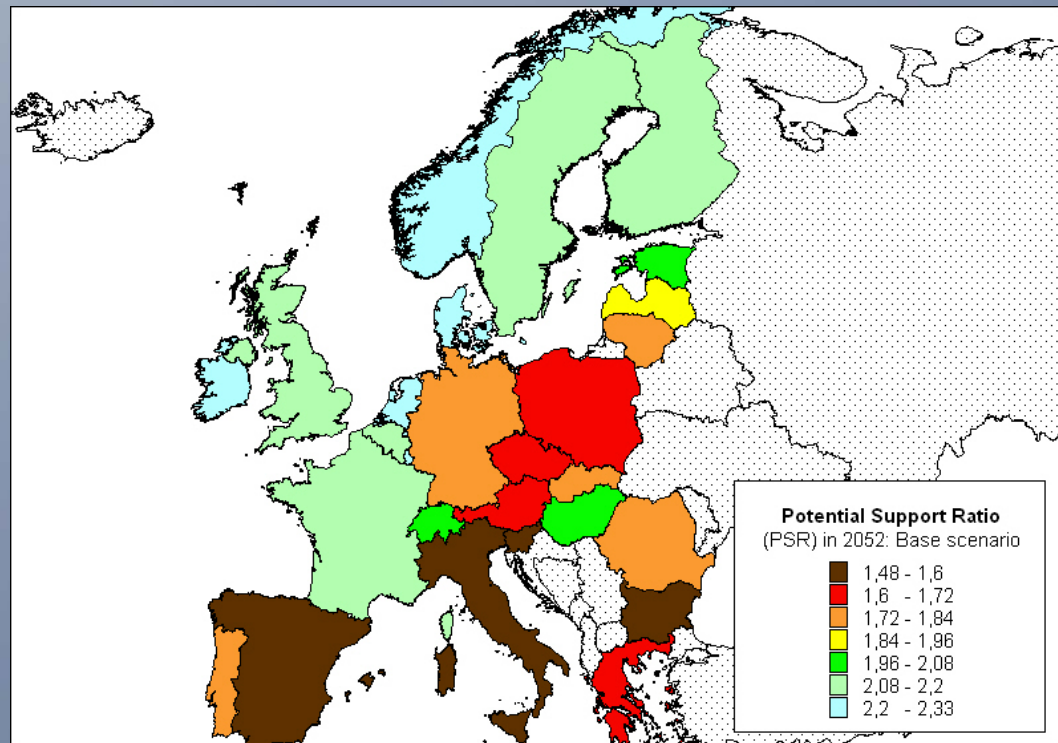
$$\text{PSR} = \frac{\text{Pop. 15-64}}{\text{Pop. 65+}}$$

*Pop. - Population*

Average PSR:

in 2002: **4.18**

in 2052: **1.82**



### 3. Population and labour force forecasts, 2002–2052

Elderly Support Ratio (ESR) in 2052: Base scenario

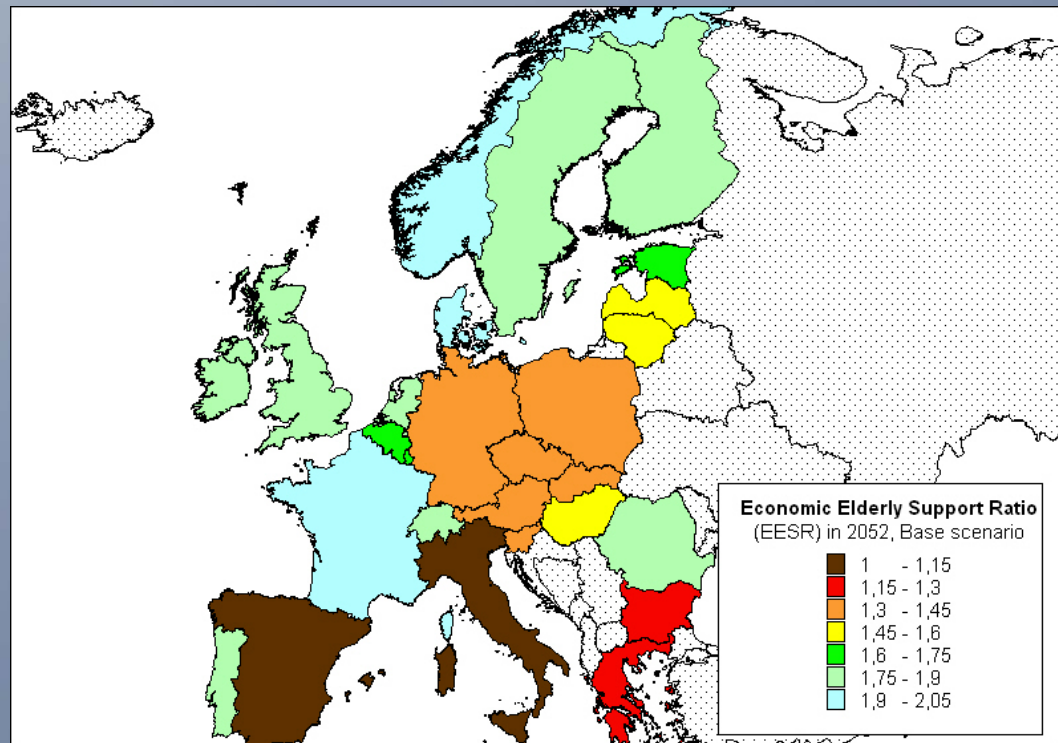
$$\text{ESR} = \frac{\text{Act. 15-64}}{\text{Inact. 65+}}$$

*Act.* – economically  
active population;  
*Inact.* – inactive

Average ESR:

in 2002: **3.09**

in 2052: **1.51**



### 3. Population and labour force forecasts, 2002–2052

Labour Market Support Ratio (LMSR) in 2052: Base scenario

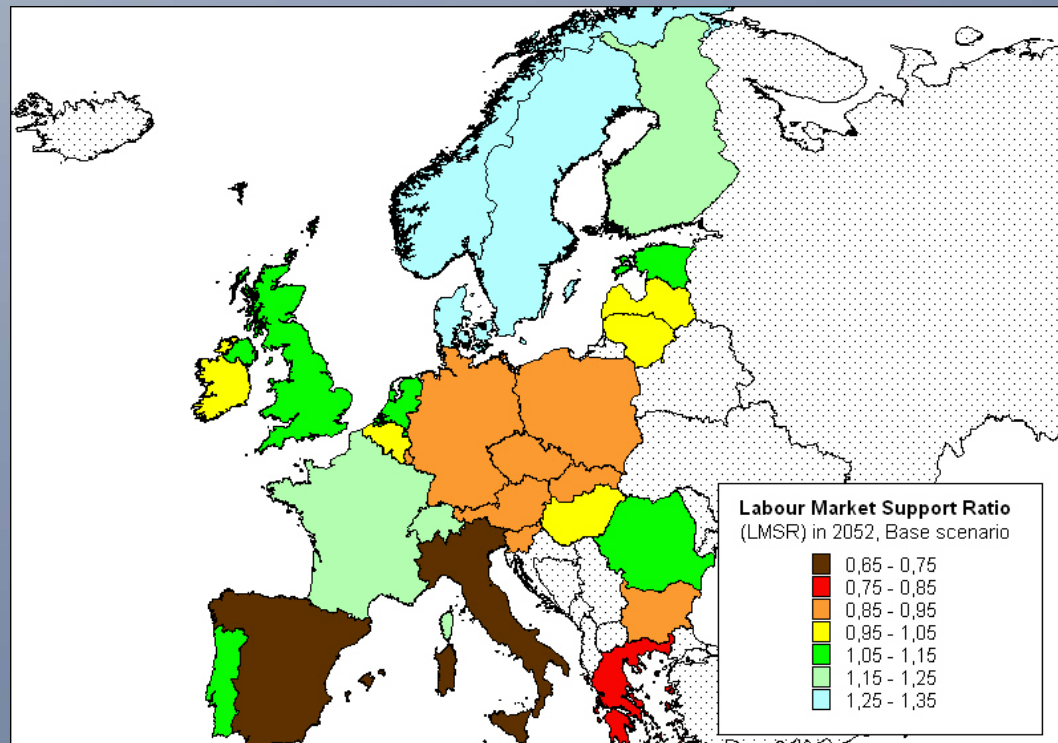
$$\text{LMSR} = \frac{\text{Act. 15+}}{\text{Inact. 15+}}$$

*Act.* – economically  
active population;  
*Inact.* – inactive

Average LMSR:

in 2002: **1.30**

in 2052: **0.95**





## 4. Is “replacement migration” a remedy?

The presented forecasts indicate that population ageing is expected to be significantly advanced by 2052



Is the option of increasing immigration, to prevent the support ratios from declining, realistic in the long run?



Many simulations, including this study, show that **NO:** migration would have to increase without end, similarly to the fraudulent ‘pyramid schemes’



## 5. Alternative policy options

### (a) Increase fertility

- In the long run, it is the only way to slow down the ageing of population and labour force resources,  
**but:**
- No single policy instrument can do it – a combination of various policies is needed [Grant *et al.*, 2004]
- Such (serious) policies are usually very expensive
- As population processes have large inertia, the results of such policies would be observed with a time delay [Lutz *et al.*, 2003]



## 5. Alternative policy options

### (b) Increase economic activity

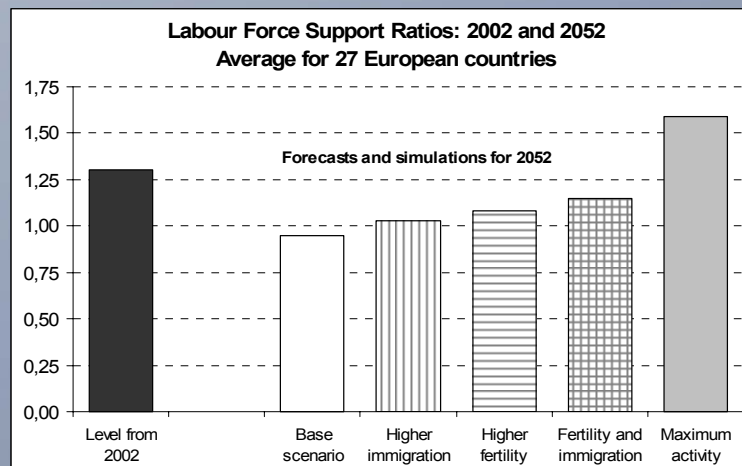
- For Europe, this is a good mid-term (40–50 years) solution, until fertility policies begin to work
- There still is an unused labour force potential in Europe, especially as compared with the US, and with respect to the activity of women and the elderly
- Problem acknowledged at the EU level (Lisbon Strategy)

#### **but:**

- Policy instruments should be consistent with the ones aimed at increasing fertility, and enable to reconcile work (career) with family life

## 5. Alternative policy options

### Summary of the simulation results for 27 countries



$$\text{LMSR} = \frac{\text{Active 15+}}{\text{Inactive 15+}}$$

The results for particular countries substantially vary –

- Northern Europe, France and the Benelux have larger potential left for increasing economic activity than fertility
- Central-Eastern and Southern Europe should concentrate both on fertility and labour force participation



## 6. Summary and conclusions

- **Results of the forecasts**

- In the scenario with Base migration, the overall population of the 27 countries is hardly expected to change over 50 years, but the labour force resources are foreseen to decline by 10%
- Population and labour force ageing in Europe is universal, but its tempo differs very much between the countries under study

- **Policy recommendations**

- Population and labour force policies should be complex and combine measures aimed at increasing fertility (long-term), economic activity (mid-term), and migration (short-term only)
- As indicated by numerous other studies, an increase in the retirement age would be also necessary in a long run
- Partial reforms and policy solutions are doomed to fail



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Thank you for your attention!

Merci pour votre attention!

Bedankt voor Uw aandacht!

More details about the project and its results:

[www.cefmr.pan.pl](http://www.cefmr.pan.pl)

An article is also forthcoming in vol. 22 (4) 2006 of  
*European Journal of Population / Revue Européenne de Démographie*