Central European Forum
for Migration Research

Środkowoeuropejskie Forum
Badań Migracyjnych

Replacement Migration Revisited:
Migratory Flows, Population and Labour Force
in Europe, 2002–2052

Jakub Bijak, Dorota Kupiszewska, Marek Kupiszewski

Central European Forum for Migration Research

Joint Eurostat - UNECE Work Session on Demographic Projections
Vienna, September 21-23, 2005

Central European Forum
for Migration Research

Środkowoeuropejskie Forum
Badań Migracyjnych

Contents

1. Aim and scope
2. Background
3. Data, model, and assumptions
4. Simulations performed
5. Results
6. Conclusions

1. Aim and scope

Aims of the study:

- To analyse relations between international migration, population ageing and labour force dynamics for selected European countries in 2002–2052 using the 'replacement migration' concept

- To evaluate on that basis various policy options regarding population, migration, and labour force

Scope:

- 27 European countries: EU (without Cyprus and Malta), plus Bulgaria, Romania, Norway and Switzerland

- Time horizon: 2002–2052

Central European Forum
for Migration Research

CEFMR
M
SFBM

Środkowoeuropejskie Forum
Badań Migracyjnych

2. Background

- 'Replacement migration' report of the UN (2000) and its critique (Espenshade, 2001; Coleman, 2002)

- Other similar studies (Lesthaeghe *et al.*, 1988; Wattelaar & Roumans, 1991; Gesano, 1994; Feld, 2000; McDonald & Kippen, 2000)

- What this study adds:

  – It focuses on a wide selection of European countries, including Central and Eastern Europe

  – It partially addresses the critique of the UN report by including scenarios of economic activity and produce 'replacement' simulations for targets of various aggregate demo-economic indicators

Central European Forum
for Migration Research

CEFMR
M
SFBM

Środkowoeuropejskie Forum
Badań Migracyjnych

3. Data, model, and assumptions

Data:

- Demographic data: Eurostat and Council of Europe
- Labour force participation: ILO (Laborsta)

Model:

- Multi-regional model of population dynamics "MULTIPOLES" (Kupiszewski & Kupiszewska, 1998)

Assumptions:

- Demographic and labour force scenarios for 2002–2052: presented yesterday in the first session on demographic projections by Prof. Marek Kupiszewski
- 'Replacement migration' computed in addition to the Base forecast scenario

Central European Forum
for Migration Research

CEFMR
SFBM

Środkowoeuropejskie Forum
Badań Migracyjnych

4. Simulations performed

Four 'replacement' scenarios, with non-decreasing:

- **Total size of the population**

- **Potential Support Ratio (PSR)**
  Number of persons aged 15–64 to the population aged 65+

- **Economic Elderly Support Ratio (EESR)**
  Ratio of the size of the economically active population aged 15-64
  to the economically inactive population aged 65+)
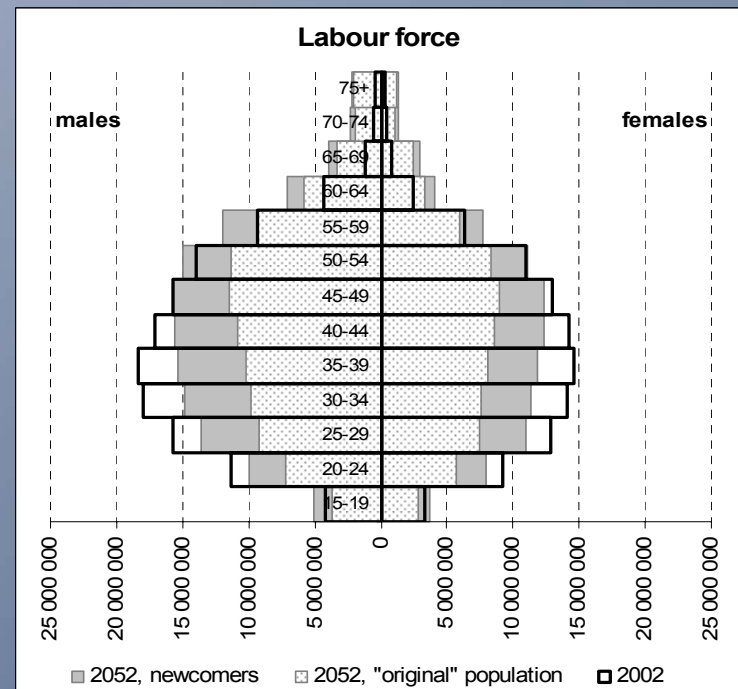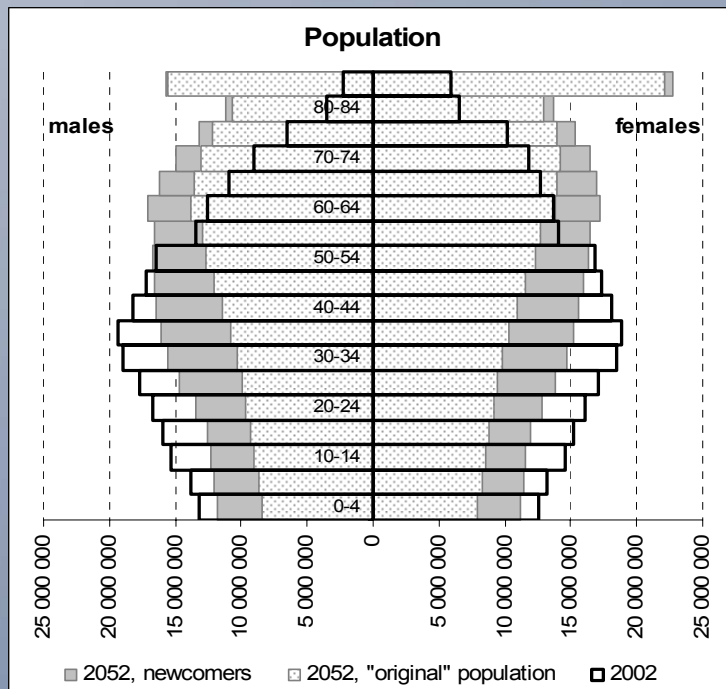 – measures the economic burden of the retired on the active pop.

- **Labour Market Support Ratio (LMSR)**
  Ratio of the size of the economically active population aged 15+
  to the economically inactive one (also 15+)
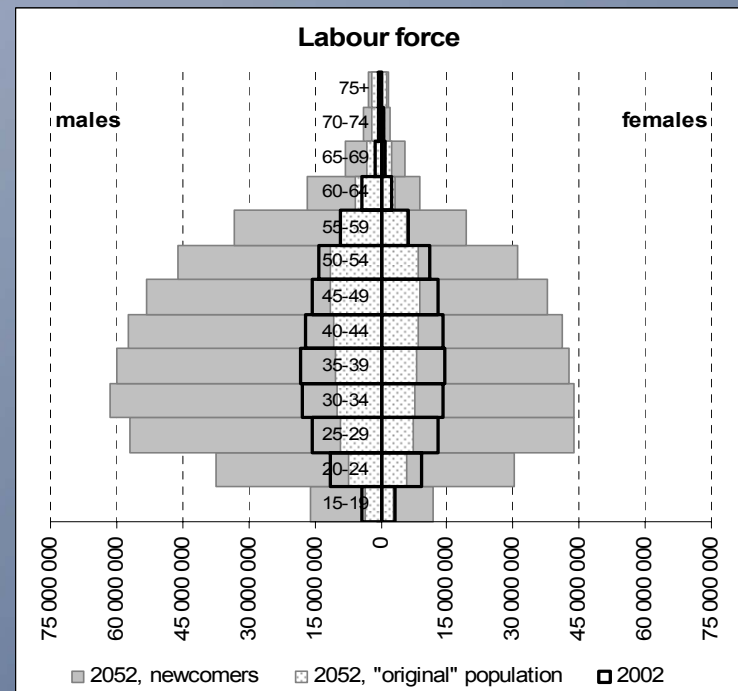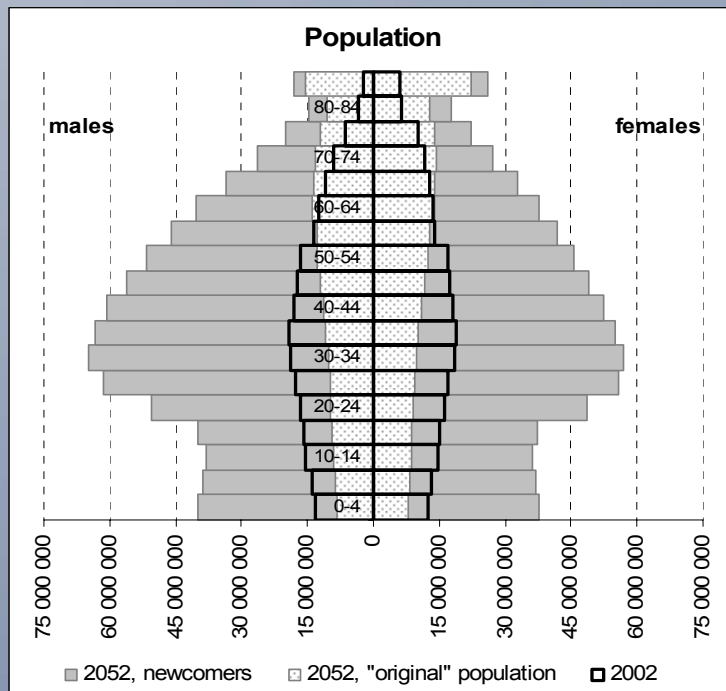 – measures the overall economic burden on the labour market

5. Results

'Replacement' in 27 countries: non-decreasing population

Cumulated 'replacement' volume 2002–2052: 32.8 million

Central European Forum
for Migration Research

CEFMR
SFBM

Środkowoeuropejskie Forum
Badań Migracyjnych

5. Results

'Replacement' in 27 countries: non-decreasing PSR

Population

males   females

| 80-84 |
| 70-74 |
| 60-64 |
| 50-54 |
| 40-44 |
| 30-34 |
| 20-24 |
| 10-14 |
| 0-4 |

75 000 000 60 000 000 45 000 000 30 000 000 15 000 000 0 15 000 000 30 000 000 45 000 000 60 000 000 75 000 000

▢ 2052, newcomers   ▢ 2052, "original" population   ▢ 2002

Labour force

males   females

| 75+ |
| 70-74 |
| 65-69 |
| 60-64 |
| 55-59 |
| 50-54 |
| 45-49 |
| 40-44 |
| 35-39 |
| 30-34 |
| 25-29 |
| 20-24 |
| 15-19 |

75 000 000 60 000 000 45 000 000 30 000 000 15 000 000 0 15 000 000 30 000 000 45 000 000 60 000 000 75 000 000

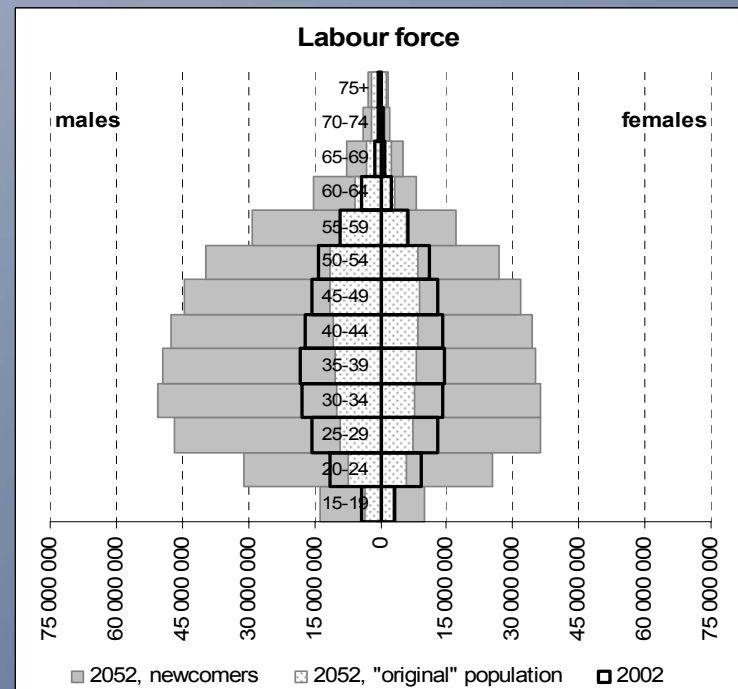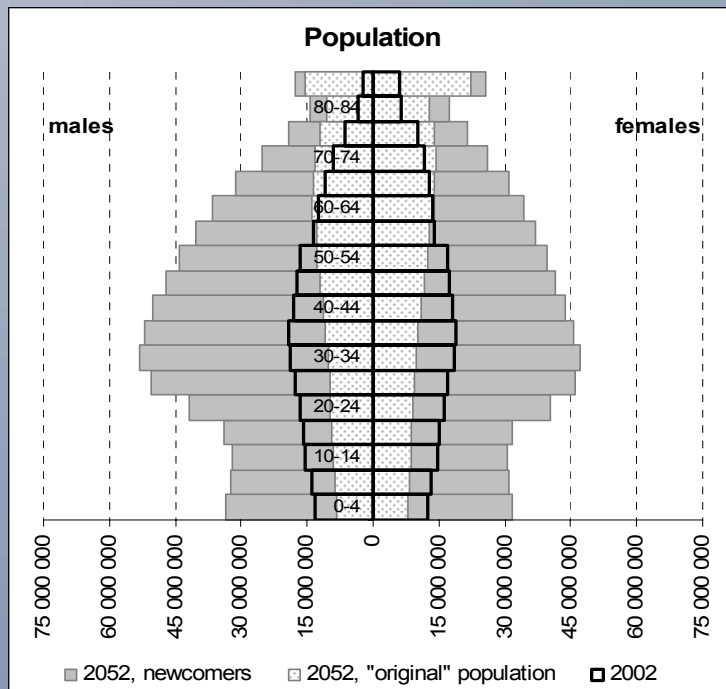▢ 2052, newcomers   ▢ 2052, "original" population   ▢ 2002

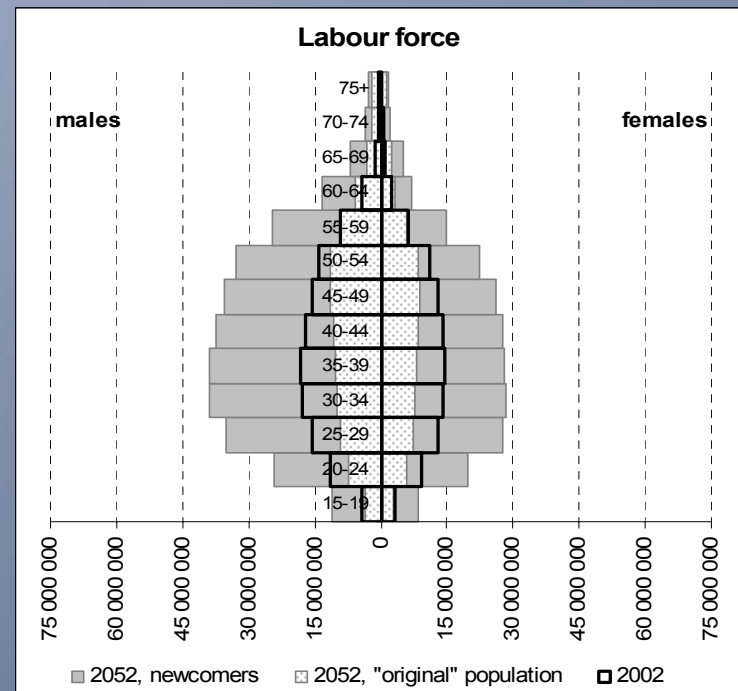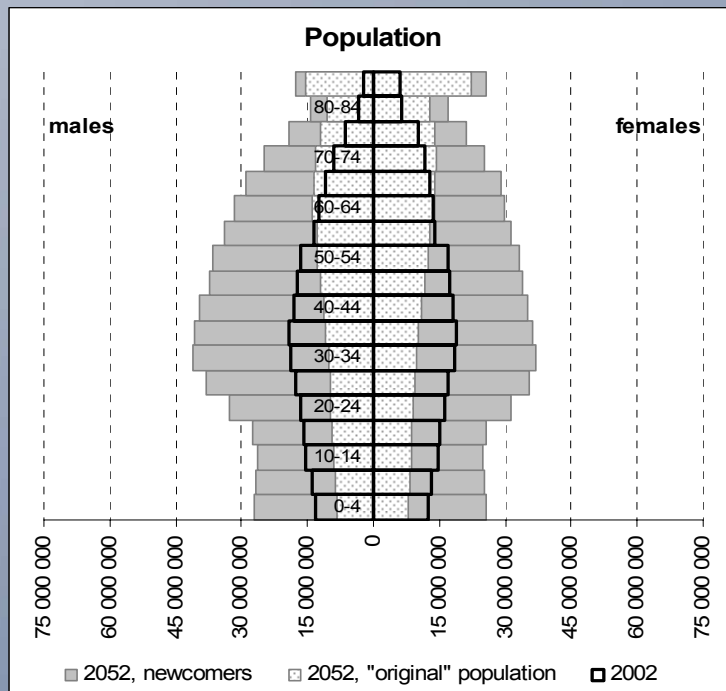## Cumulated 'replacement' volume 2002–2052: **839.6 million**

5. Results

'Replacement' in 27 countries: non-decreasing EESR

Cumulated 'replacement' volume 2002–2052: 653.1 million

5. Results
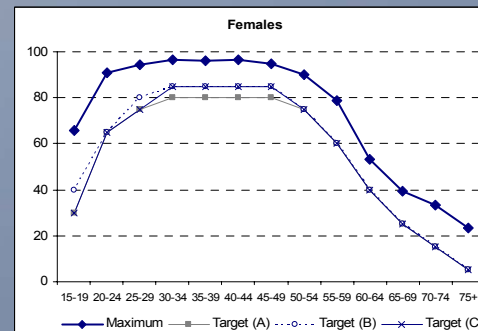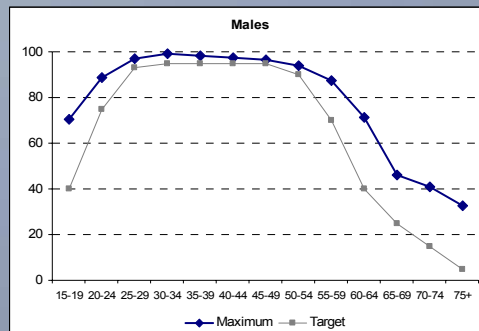
'Replacement' in 27 countries: non-decreasing LMSR

Cumulated 'replacement' volume 2002–2052: 470.7 million

Central European Forum
for Migration Research

CEFMR
M
SFBM

Środkowoeuropejskie Forum
Badań Migracyjnych

5. Results

Buying Time: 'Maximum labour participation' scenario

- Historical (1985–2002) cross-country maximum patterns of economic activity projected for the whole simulation period

- Results – no decline of LMSRs below its 2002 levels until:
  – the end of the simulation period (2052) for 21 countries,
  – 2047–2052 for four countries (CZ, ES, NL, SK),
  – 2042–2047 for Portugal,
  – 2022–2027 for Switzerland.

Central European Forum
for Migration Research

CEFMR
M
SFBM

Środkowoeuropejskie Forum
Badań Migracyjnych

6. Conclusions

- **Most of the simulations (again!) yielded implausible magnitudes of the 'replacement migration'**

- **Plausible policy options:**
  - Increase fertility – the long-term solution (Lesthaeghe, 2000). Problems: how to do it, and when it will start to work (negative population momentum, Lutz *et al.*, 2003)?
  - Increase labour force participation (Coleman, 2002) – a good option in the mid-term (< 50 years), ameliorating negative outcomes of ageing before any fertility policies give results.
  - Immigration: not a 'solution against the negative outcomes of population ageing', rather an instrument to cover labour shortages in certain sectors (Korcelli, 2003)
  - Raising the awareness of the ageing problems in the society