Changed emigration as a remedy against depopulation

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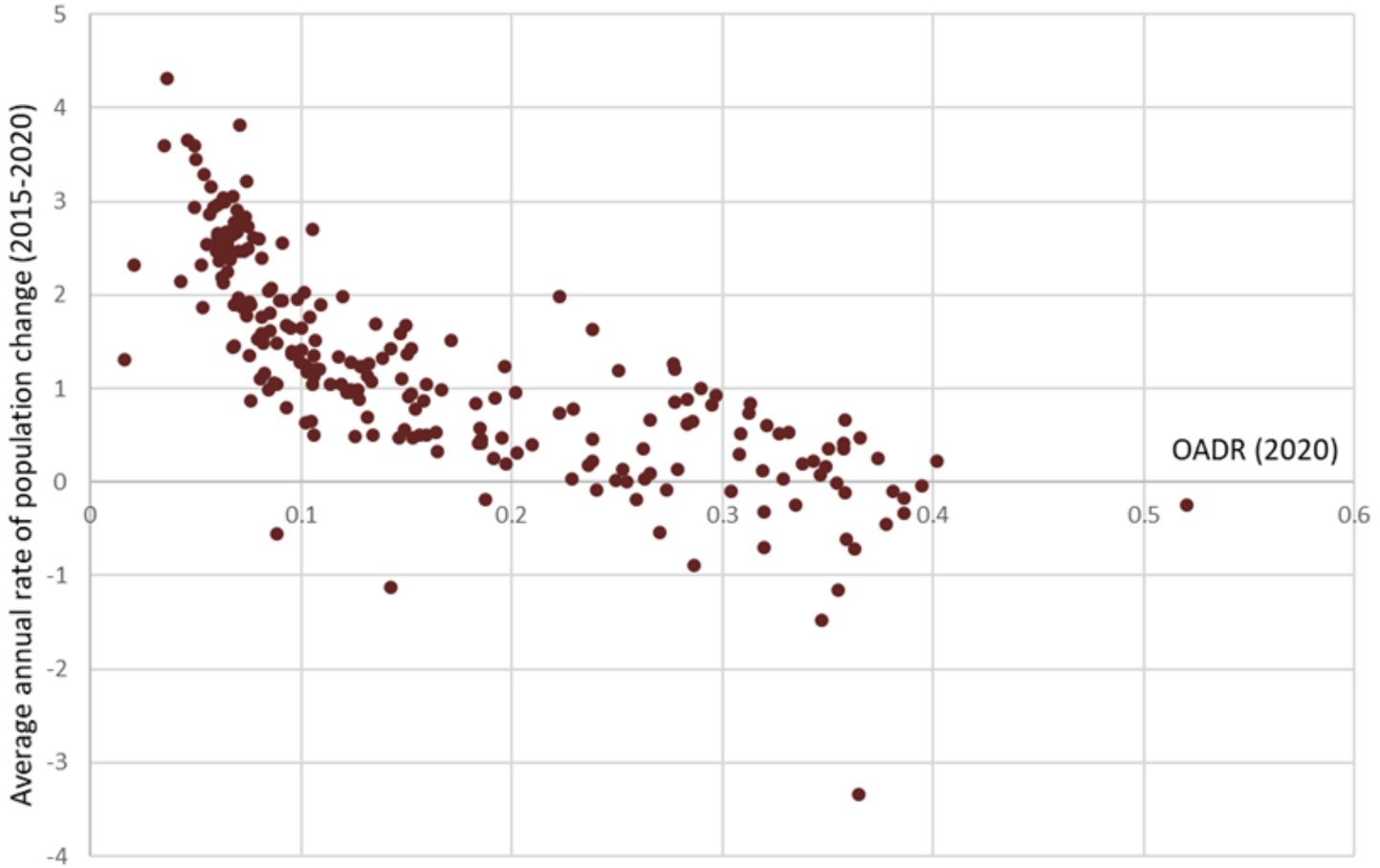
Photo: Yousef Alfuhigi

Background I

- Population decline is a topic of great concern in many countries
- The concern is usually linked to population ageing
  often measured by the old-age dependency ratio (OADR, 65+/20-64)

Countries in the world, by population growth and ageing. Source: UN



Background II

- To counteract negative effects of depopulation and ageing, demographic remedies such as increased fertility and/or increased immigration are often proposed, but …

Substantial increases in long-term fertility have proved difficult to achieve (Sobotka et al. 2019, Bergsvik et al. 2020).

To increase immigration is politically controversial, and may have limited effects in the long term (UN DESA 2001; Bijak et al. 2008; Sanchez et al. 2016; Bujard 2015; Murphy 2016)

To increase mortality (and reduce life expectancy) is not on the political agenda

- Emigration is rarely mentioned

- We explore how reduced emigration may increase population growth and mitigate ageing, with Norway as a case

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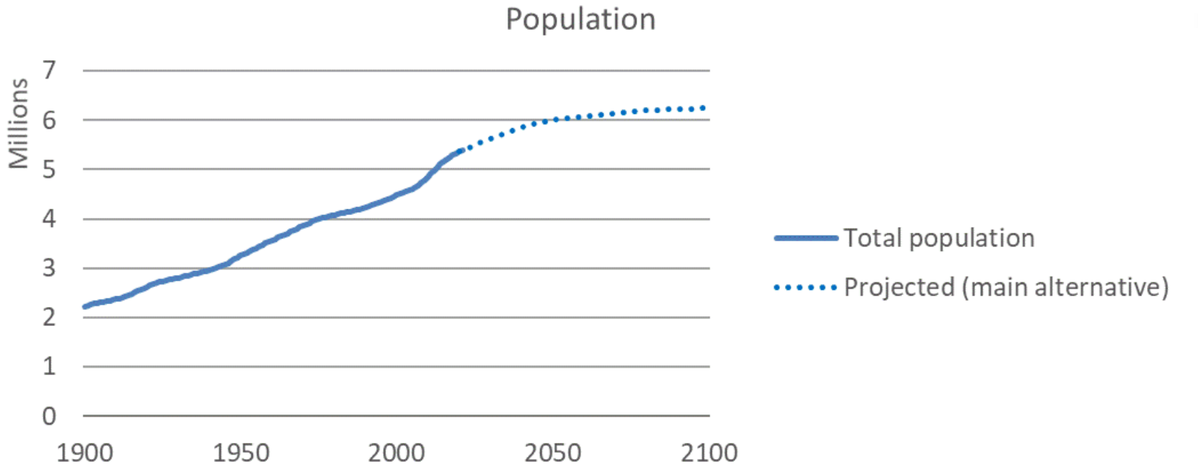
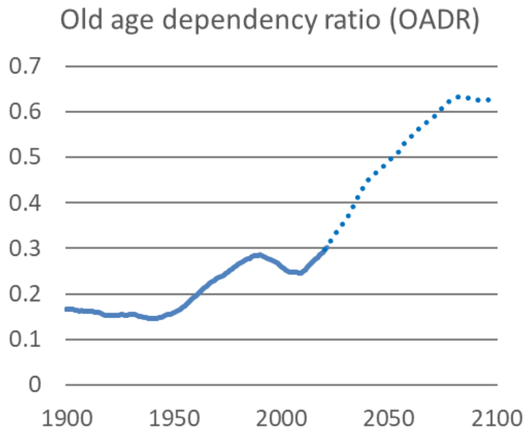
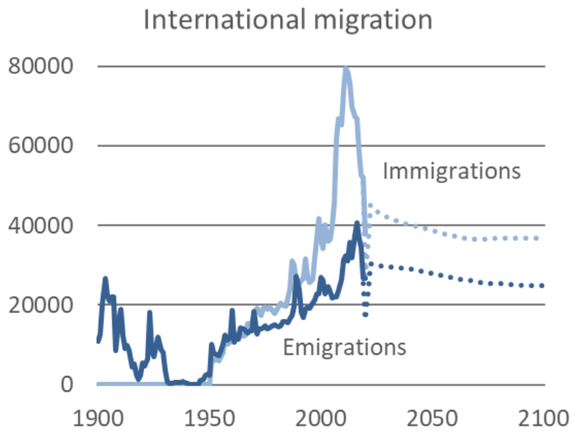
The Norwegian setting







Politicians in Norway have raised concerns about future ageing and falling fertility (TFR 2020: 1.5)

What we do

- We run population projections for Norway with a hypothetical scenario where we reduce future emigration by 50%, and explore the effect on future OADRs and population growth, compared with the main alternative in the official projections
- We use Statistics Norway's model for the Norwegian population projections, where emigration is calculated using observed emigration rates for different groups (age, sex, immigrant background ++).
- In the hypothetical scenario, these rates are all reduced by 50% throughout the projection period
- We also check how much fertility, immigration or mortality would need to change to yield the same effect on the OADR

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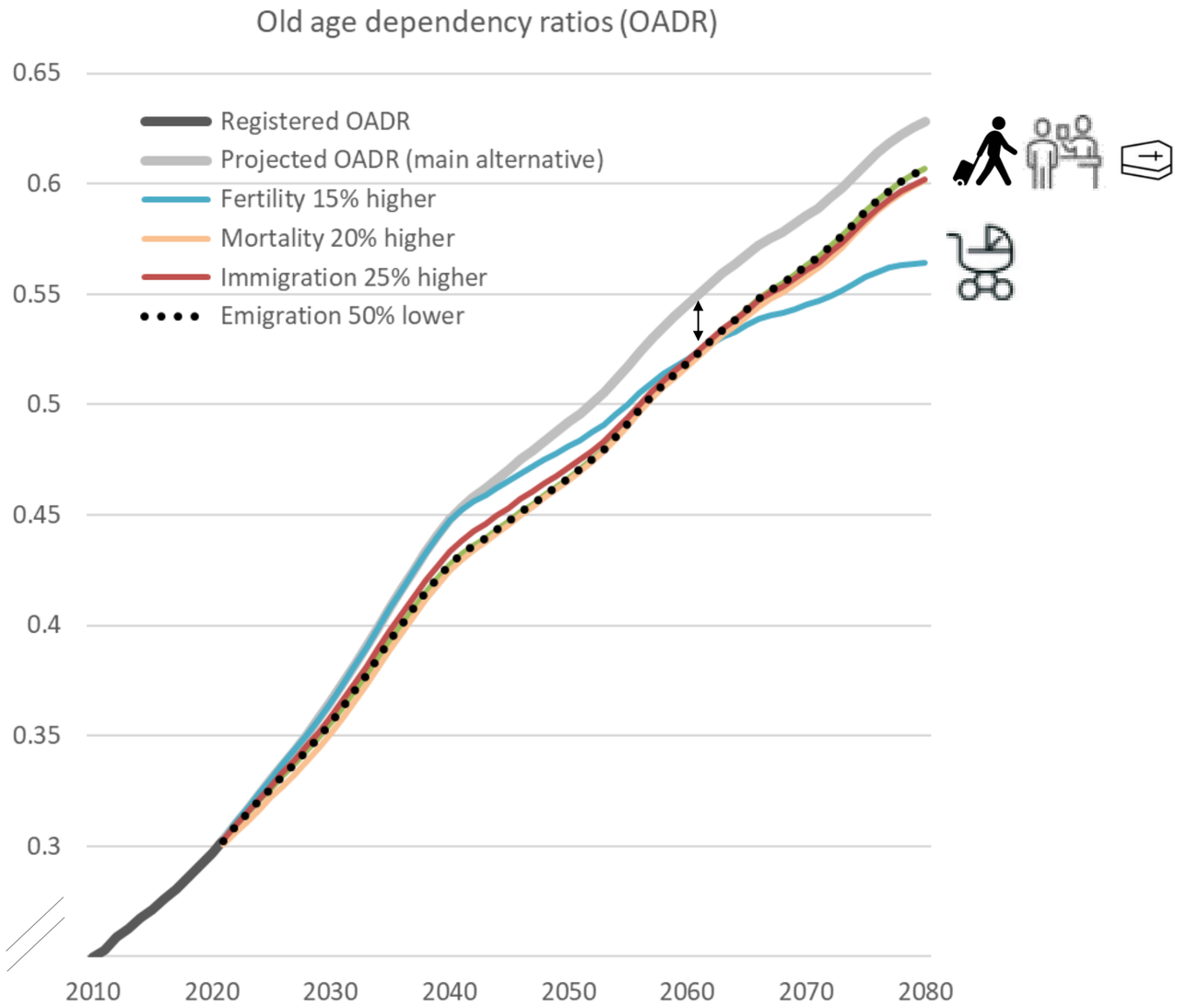
Results – future old-age dependency ratios

- 50% lower emigration rates annually would reduce OADR in 2060 from 0.55 (elderly per working-age) to 0.52

- Hence, even such a dramatic reduction in emigration will not ‘stop’ ageing in Norway

- To achieve the same OADR around 2060,
  - TFR must be raised with 15% (¼ child),
  - immigration figures upped by 25%
  - or mortality rates increased by 20%

  … compared to in the main alternative



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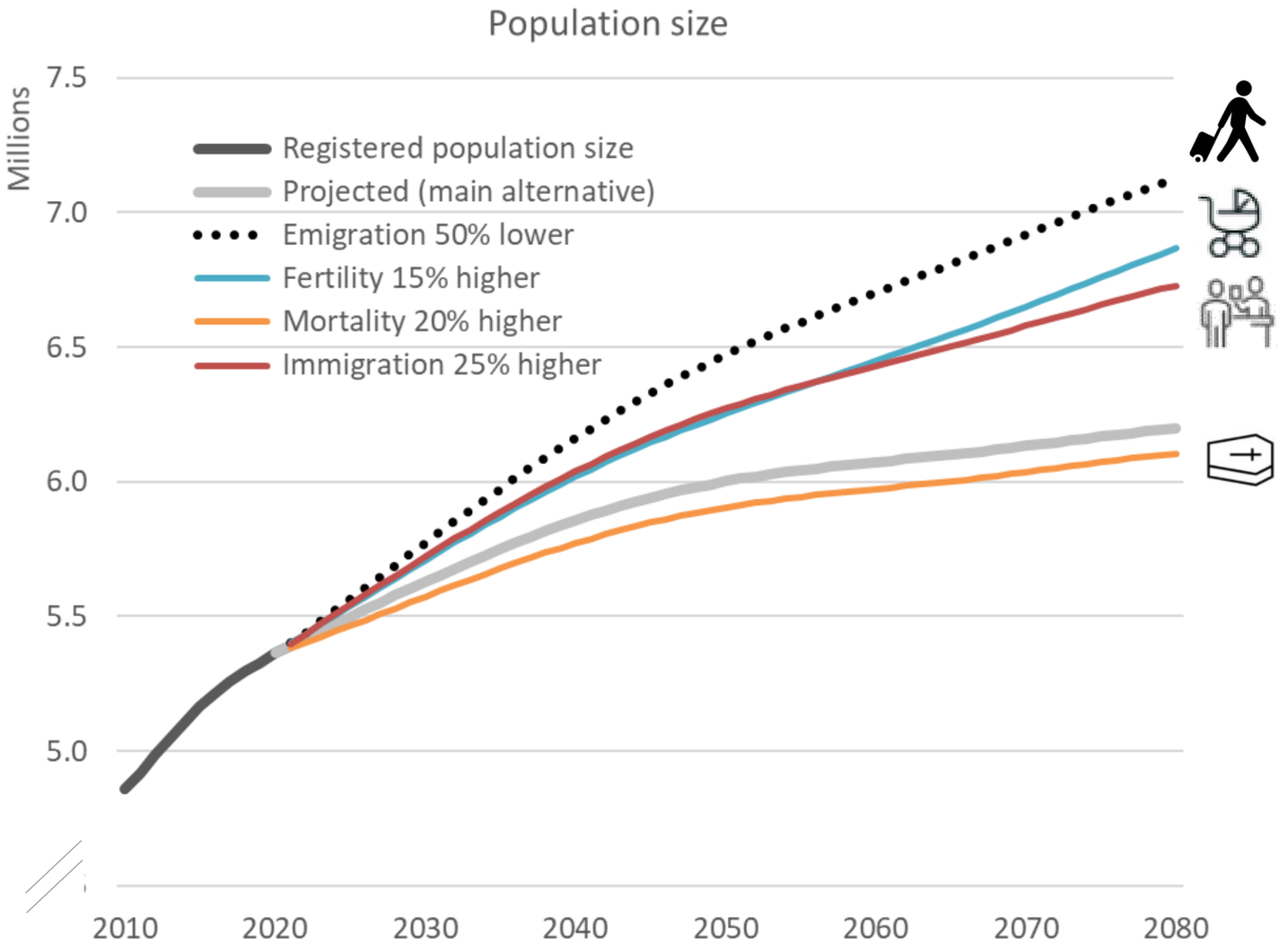
Results – future population size

- 50% lower emigration rates annually would increase the total population in 2060 by 0.6 million, or 10%
- This effect is stronger than for increased fertility or immigration



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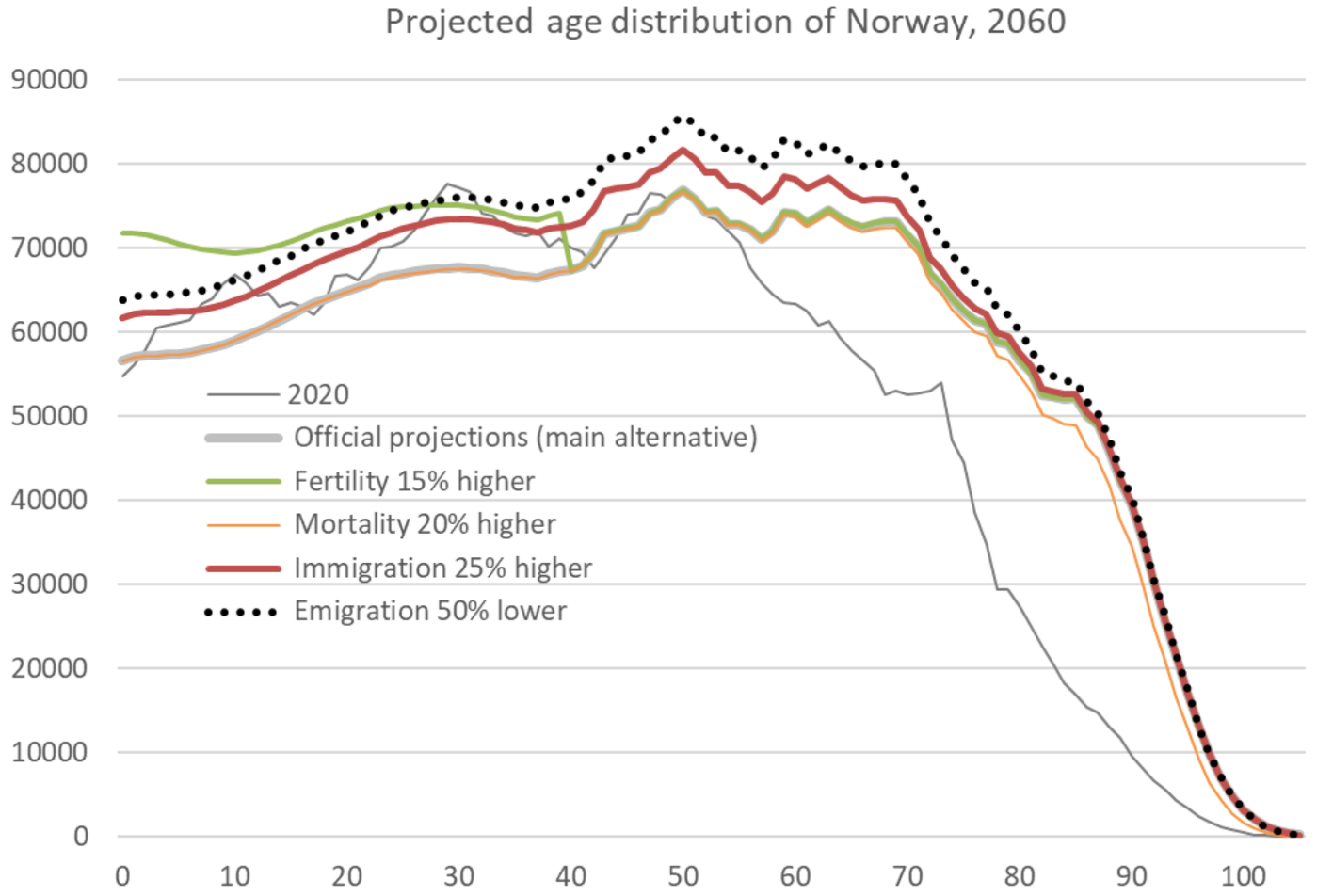
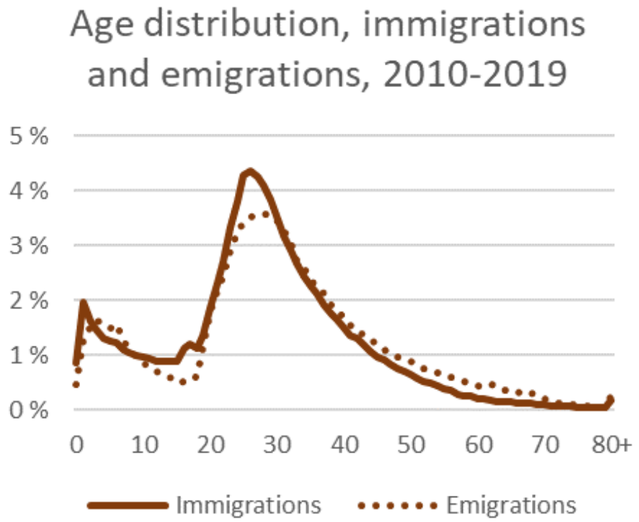
Results – future age distribution (2060)





Discussion and further work I

- Only four factors determine the future size and composition of country's population (given its age- and sex-distribution): Fertility, mortality, immigration and emigration. We show how the effects of changes in each of these components can be compared in magnitude
- As compared to changes in the other components, reduced emigration has a stronger effect on population growth than on ageing
- The changes we apply in these first analyses are pronounced, and not very plausible, but the relation between them can provide useful information about changed emigration as a remedy against depopulation and as an anti-ageing formula
- Further work includes making different changes in the emigration for different subgroups (age, immigrant-natives ++)
- We will also discuss how feasible it is for politicians to implement policy measures to change emigration

Discussion and further work II

- Changed emigration for different groups may have different effects on ageing and population size
- Some examples:

	Effect on ageing	Effect on population size	Feasible?
Less emigration among all	↓	↑↑	??
Less emigration among young	↓↓	↑	??
Less emigration among elderly	↑	↑	??
Less emigration among immigrants (all ages)	↓↓	↑	?
Less emigration among natives (all ages)*	↓	(↑)	??

* May, in turn, affect return-immigration

Literature

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