How will the growth in formal Long-term Care affect long run fiscal sustainability in Norway?

Erling Holmøy and Birger Strøm,

Research Department, Statistics Norway

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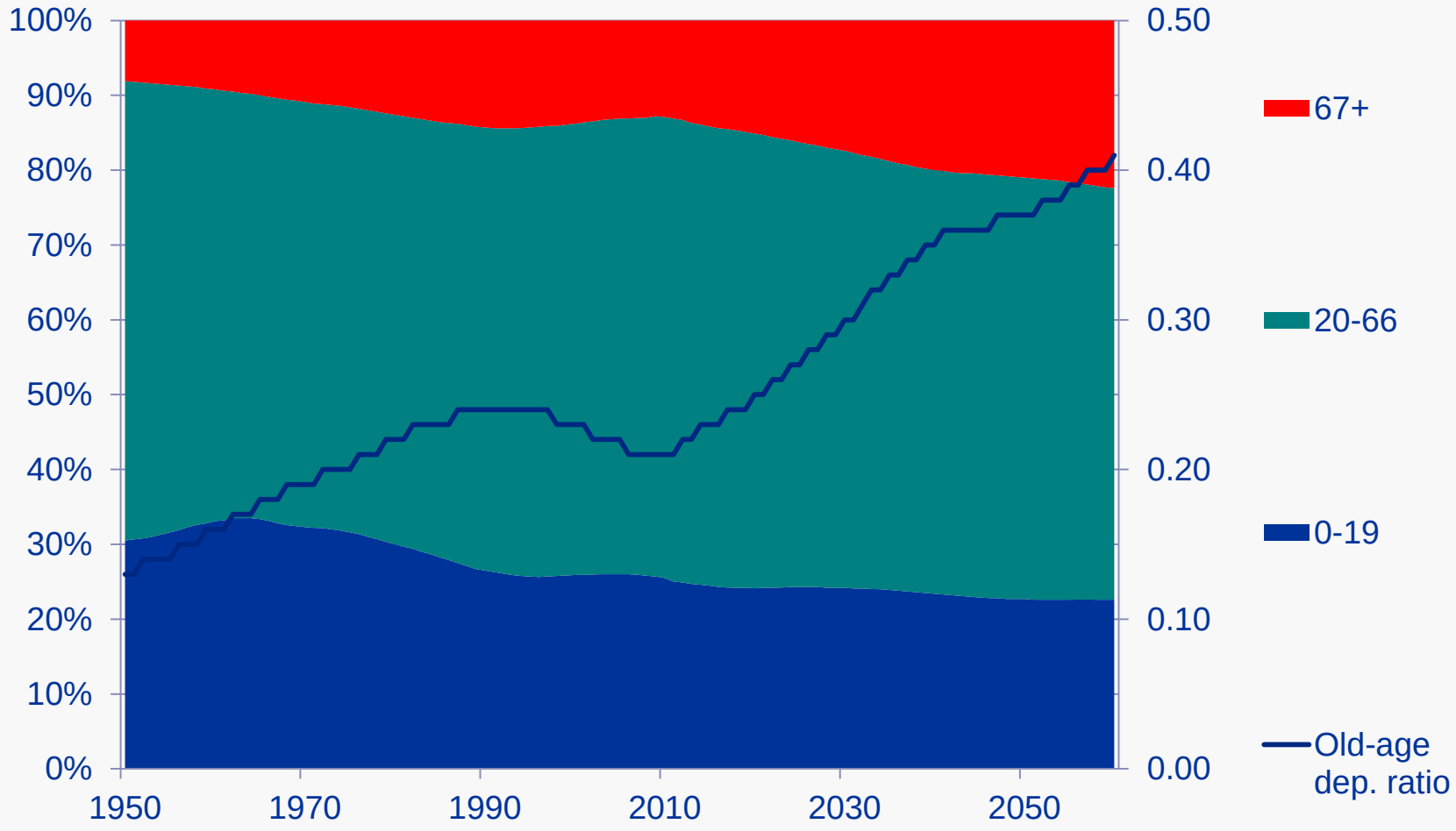
Main results and conclusions

1. Very solid government finances now, but fiscal sustainability problems some decades ahead
   A. Employment share of LTC: 5 % today, 10 % in 2060, given no standard improvements, and proportional growth in informal care
   B. 27 % in 2060, given 1 % annual standard improvement and no growth in informal care. (Health + LTC employ 38 %.)
   C. Contributions to total fiscal effect of a given expansion of LTC:
   D. Increased spending = 75 %, Reduced tax bases etc. = 25 %
2. The necessary increase in the tax burden in 2060:
   1. 23 % of GDP with 1 % annual standard improvements in Health and LTC
3. Norwegians will be even more wealthy due to productivity growth. But will the large redistributions from workers to non-workers be accepted?

Modelling I: LTC employment

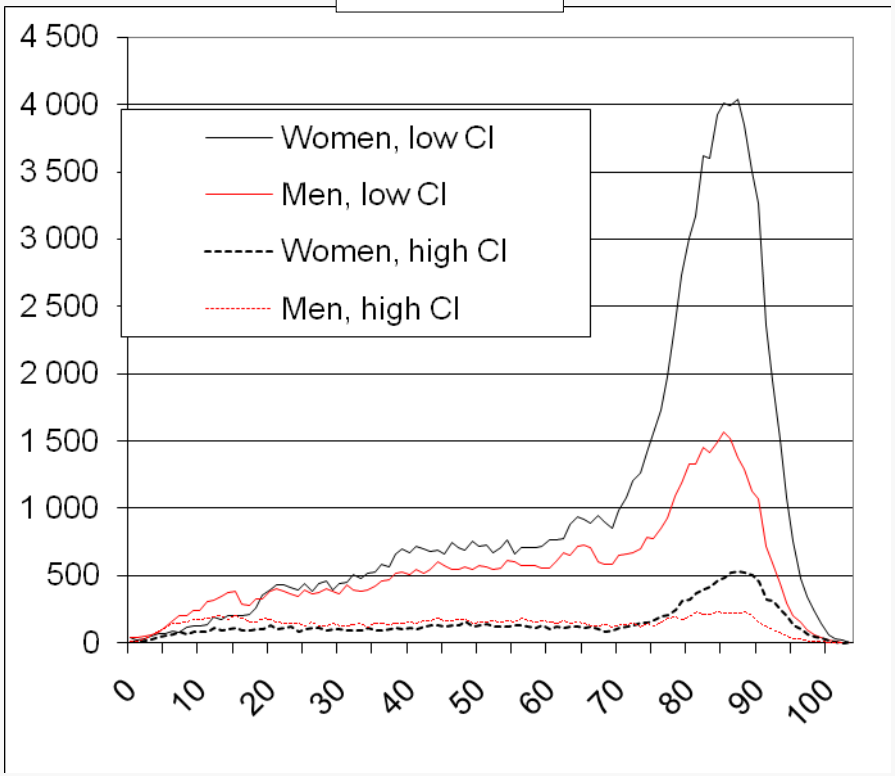
1. Demographic projections
    1. Age distributions for men and women
2. Detailed classification of services mainly produced and/or financed by the government
    1. Especially: Education, Child care, Health, LTC
    2. LTC: Detailed gender specific age profiles for home services and institutions
        - User ratios
        - Man hours per user (standard, productivity) where possible
3. Combine demography and age profiles => labour input in LTC

Population growth 2012-50

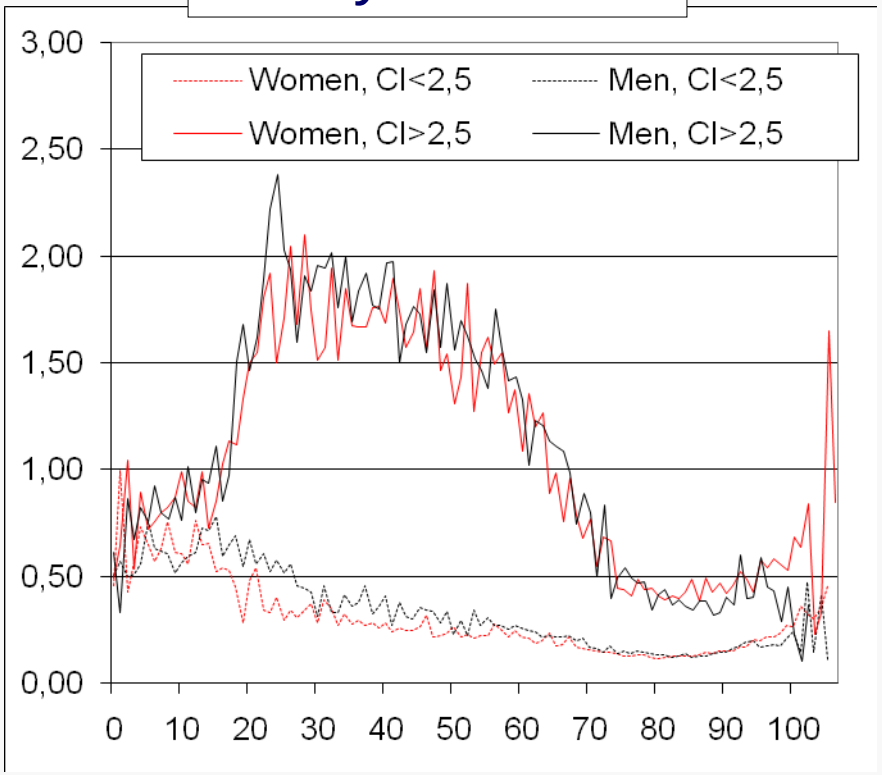


Homebased LTC

Users

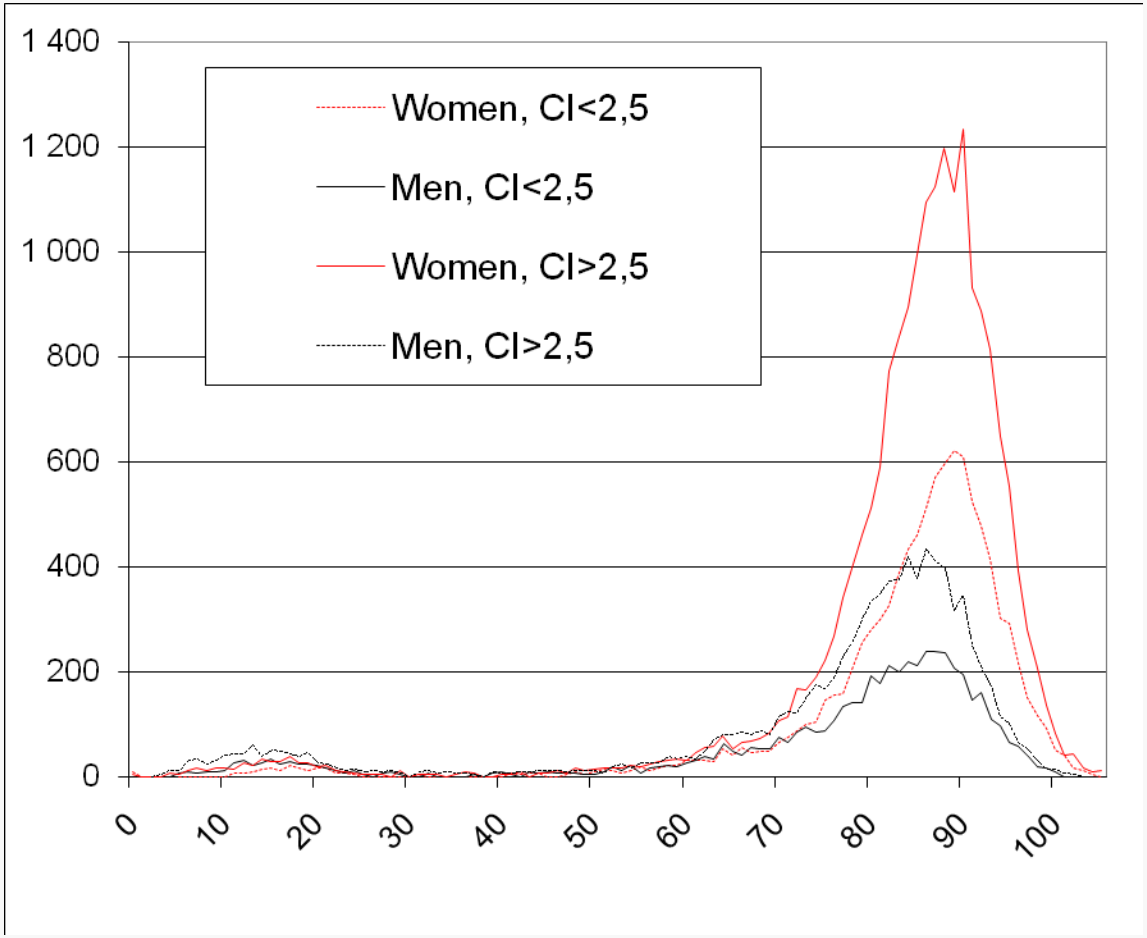


Man-years/user



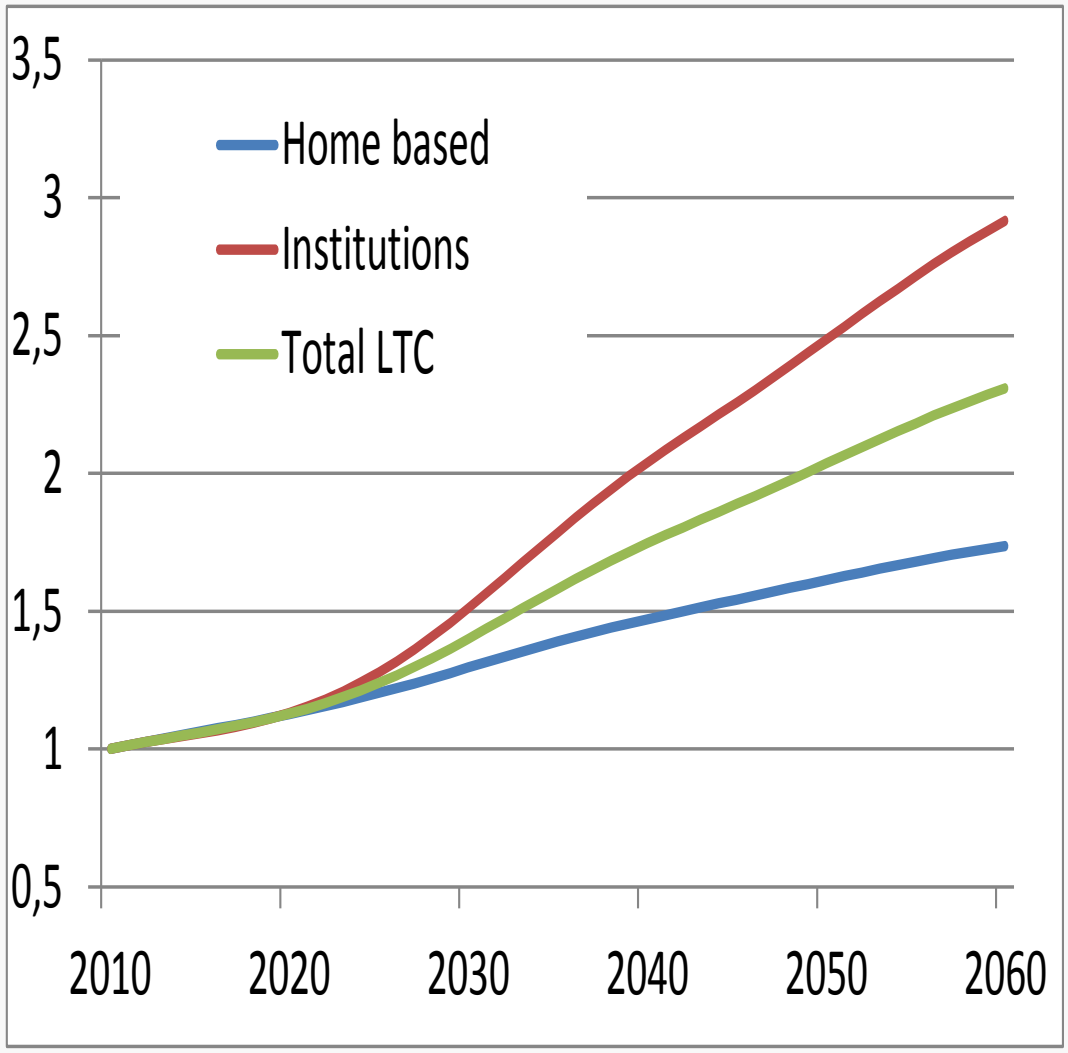
- Most users 75-90 years, Women use more than men
- Highly different age profiles for users and man years per user
- Sector average: 0,35 man years per user

Residents in LTC institutions



- Most users 75-90 years
- Women use more than men
- **No info on individual use of resources**
- Sector average: 1,4 man years per user,
  - 0,35 in home based

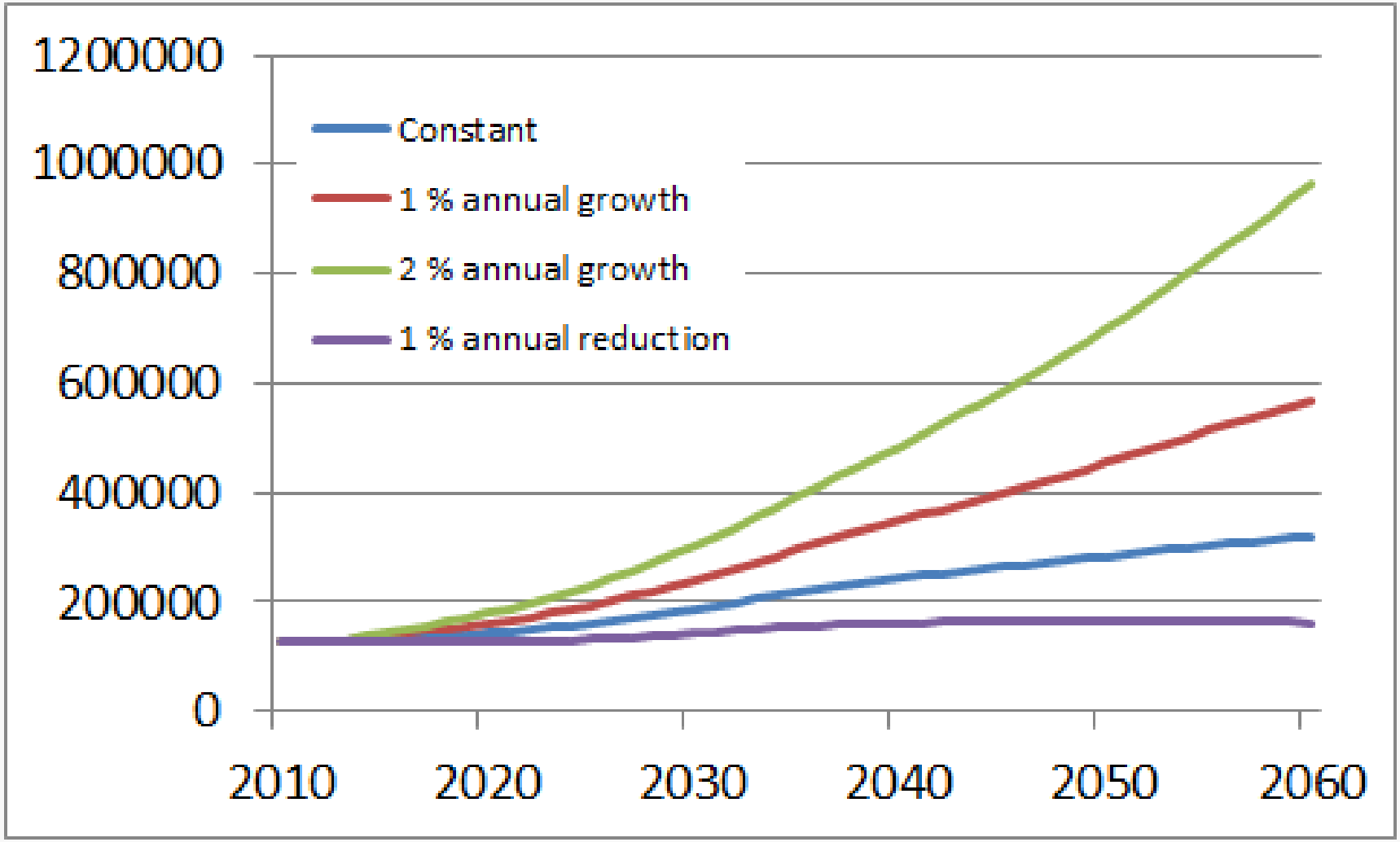
LTC-growth due to demography



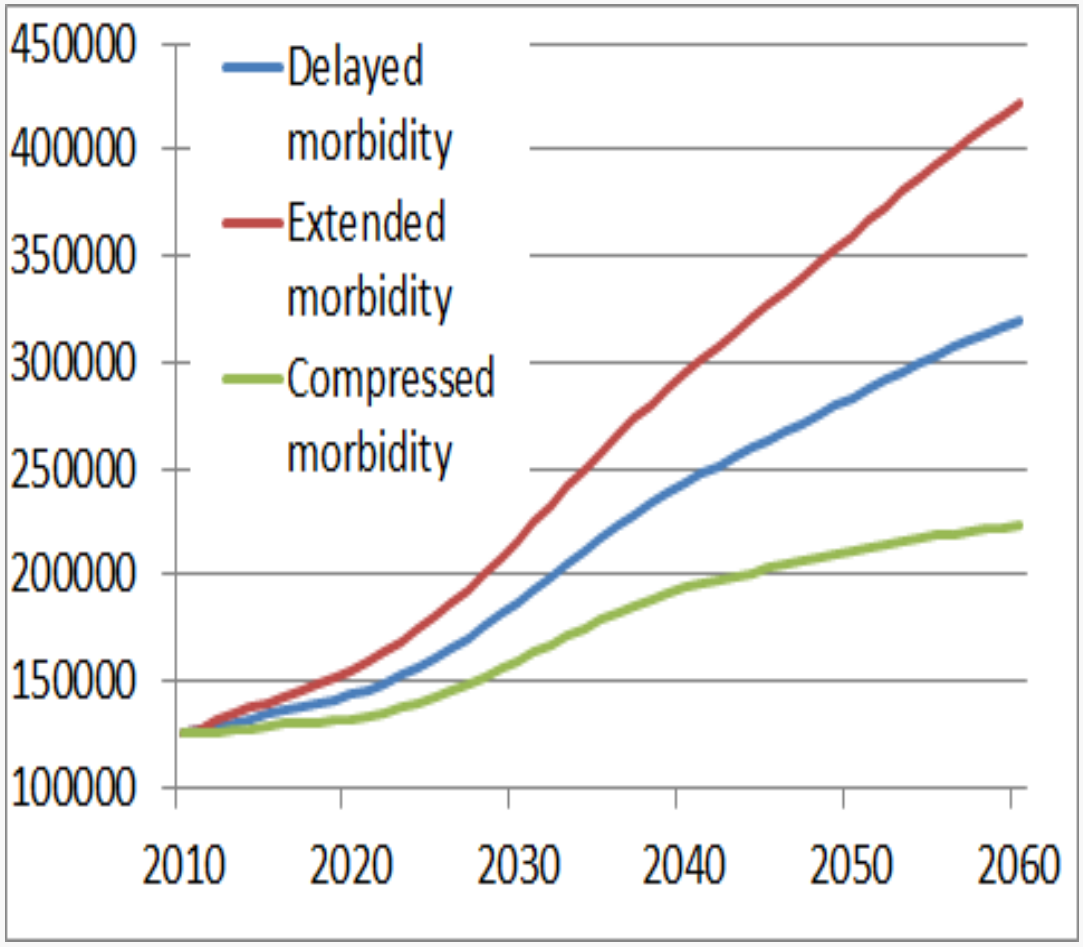
- Medium demographic growth
- No changes in health and standards
- Prpoportional growth in informal care

- LTC employment 130 % higher in 2060 than in 2010
- Strongest growth in the oldest age groups
  - Institutions 192 %
  - Homebased LTC: 74%

LTC-man years due to improved quality



LTC-man years under different assumptions on morbidity

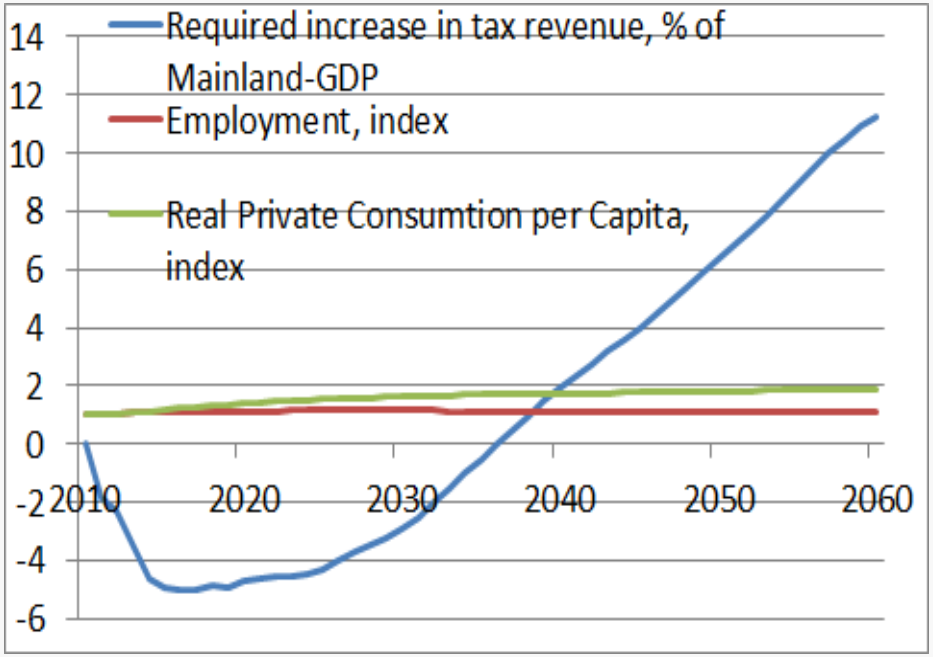


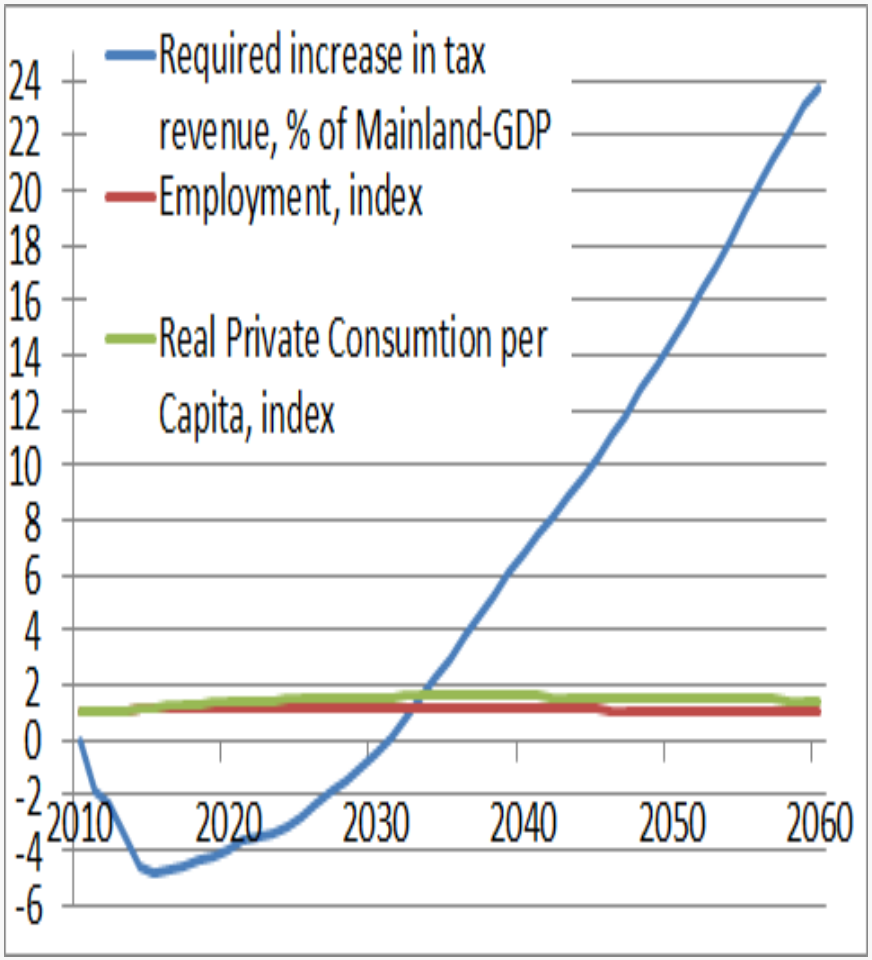
1. Delayed morbidity: User ratios adjusted for increased longevity
2. Extended: Constant age specific user ratios
3. Compressed: Twice the diffenrence between 1 and 2

Modelling II: Fiscal (and macro) effects

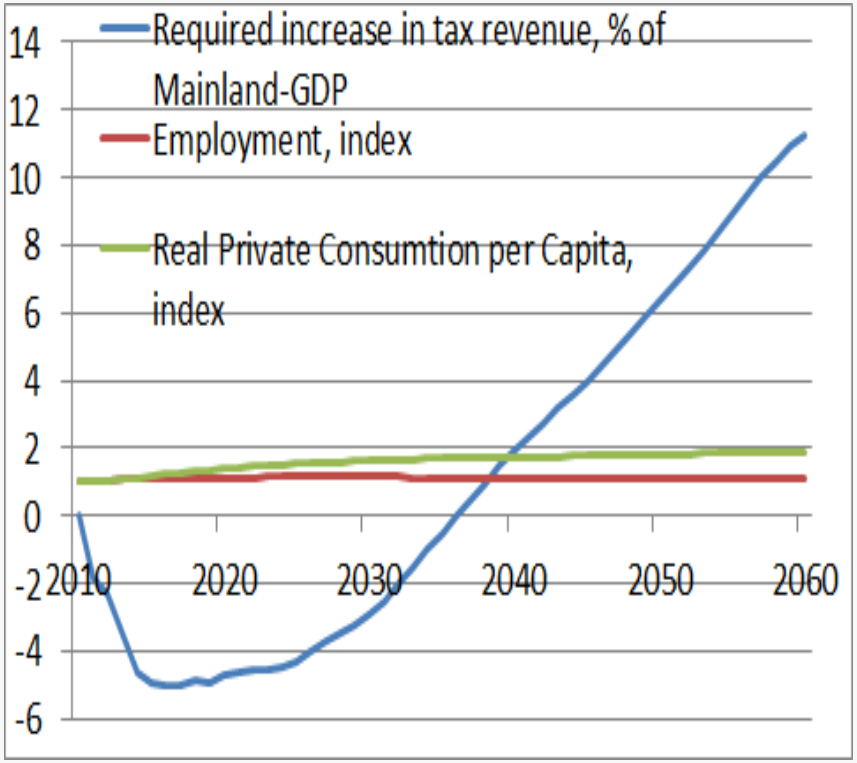
1. Combine labour, other inputs and factor prices => Total LTC spending
2. Shares of production and financing => Government LTC-spending
3. LTC-resources is input in a long run macroeconomic model. Captures:
    1. All tax bases and government spending components
    2. Tax effects caused by resource reallocations
    3. Baumol effect on relative prices

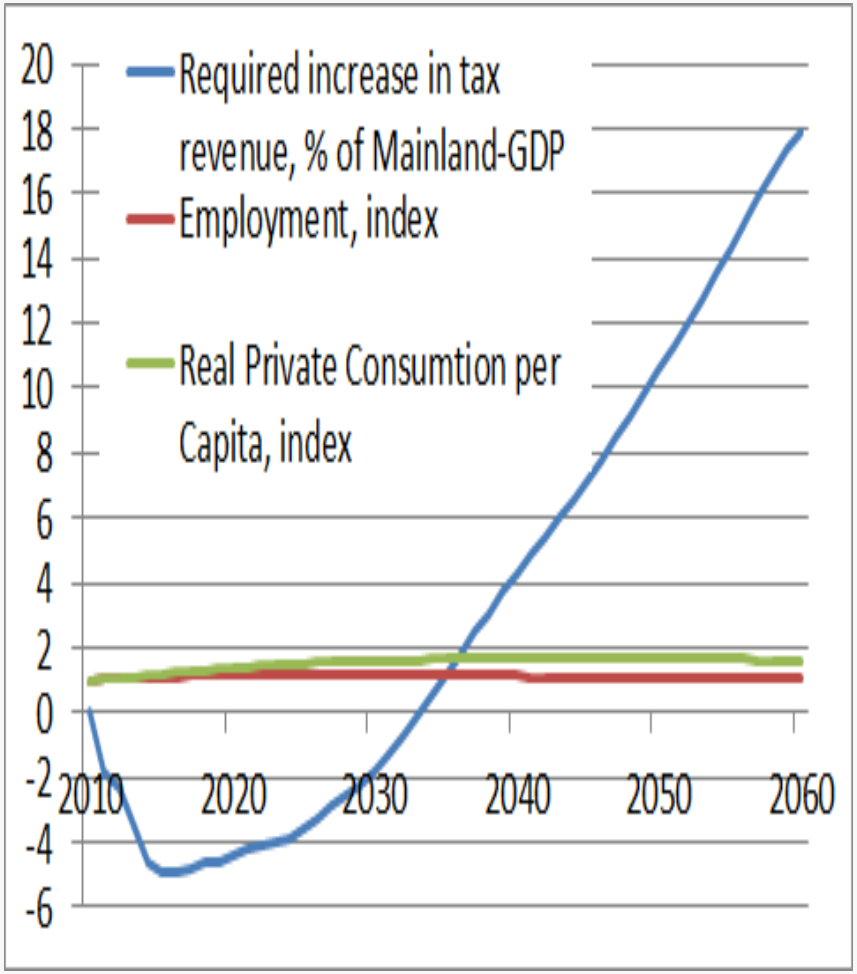
Macro paths with 0% and 1% annual growth in standards of Health and LTC





Macro paths with 0% and 1% annual growth in LTC-standards





%-shares of long run fiscal effects of 1% growth in LTC standards

Primary income	**24,8**
Net indirect taxes	22,1
Direct taxes	6,1
Social security premiums	-3,6
Primary expenditures	**75,2**
Consumption	74,4
Other expenditures	1,3

Final thougts

1. Norwegians are today much richer than other OECD citizens, and normal productivity growth will improve living standards further, despite ageing and growth in health services and LTC

2. The problem is ditributional: Welfare growth also for the elderly implies much larger redistributions from working age groups
    1. Pensions
    2. Subsidized LTC and Health services

3. Can these redistributions be politically accepted?
    1. Probably not, through increased income taxes
    2. Other funding schemes for old age pensions, LTC and health?