

The Fiscal Importance of Long-term Care

Long run Projections for Norway

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Purpose of the paper

1. Long run projections of government finances in Norway

- Focus on the contribution from Long Term Care (LTC)
- Updated age profiles and demographic projections

2. Fiscal effects of growth in LTC

2010:

- LTC share of total employment = 4,8 %
- = 126 000 man years.
- Almost evenly allocated to home services and institutions.
- Government share of LTC cost = 85 %
- In addition: 106 000 in households
- Direct spending effect
- Equilibrium effects: Reallocation of labour reduces tax bases

Main results and conclusions

1. Today: Solid government finances, thanks to petroleum revenues
2. Ageing and a generous welfare state cause fiscal sustainability problems some decades ahead
 1. Growth in pension expenditures curbed by the 2011-reform, but
 2. LTC will be *the* growth industry
3. LTC share of total employment :
 1. 4,8 % in 2010
= 126 000 man years.
Almost evenly allocated to home services and institutions.
In addition: 106 000 in households
 2. 7,8 % in 2050, even without standard improvements
 3. 11,5 % in 2050, given 1 % annual standard improvement
4. Contributions to total fiscal effect of a given expansion of LTC:
 1. Increased spending = 75 %
 2. Reduced tax bases = 28 %
 3. Other = -3 %

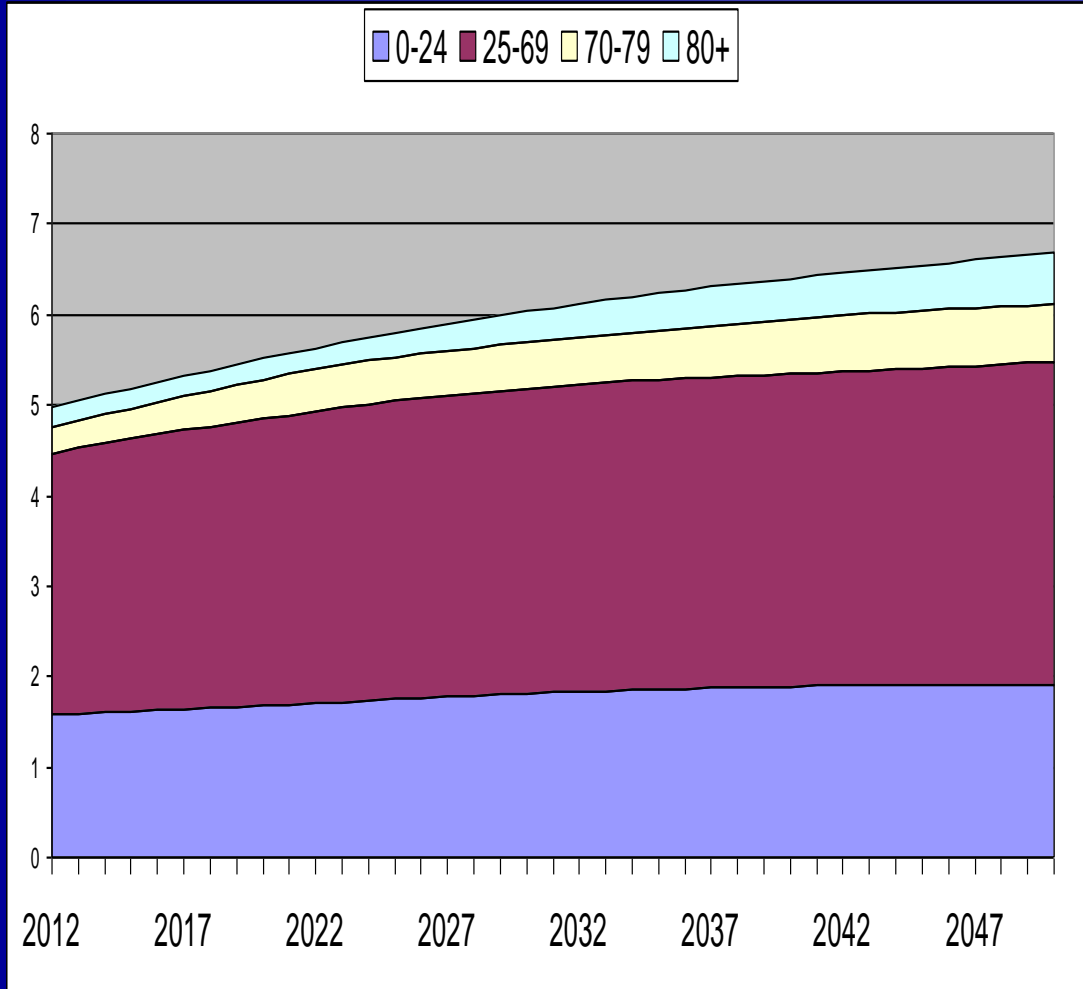
Modelling I: LTC employment

1. Demographic projections 50+ years ahead
 1. Age distributions for men and women
2. Detailed classification of services where the government dominates as a producer and financial source.
 1. Most sensitive to demographic changes: Education, Health, Child care, 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

Modelling II: Fiscal and macro effects

1. Combine labour other inputs and factor prices => Total LTC spending
2. Shares of production and financing => Government LTOC-spending
3. LTOC-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

Medium population growth 2012-50



Official projection
from SN

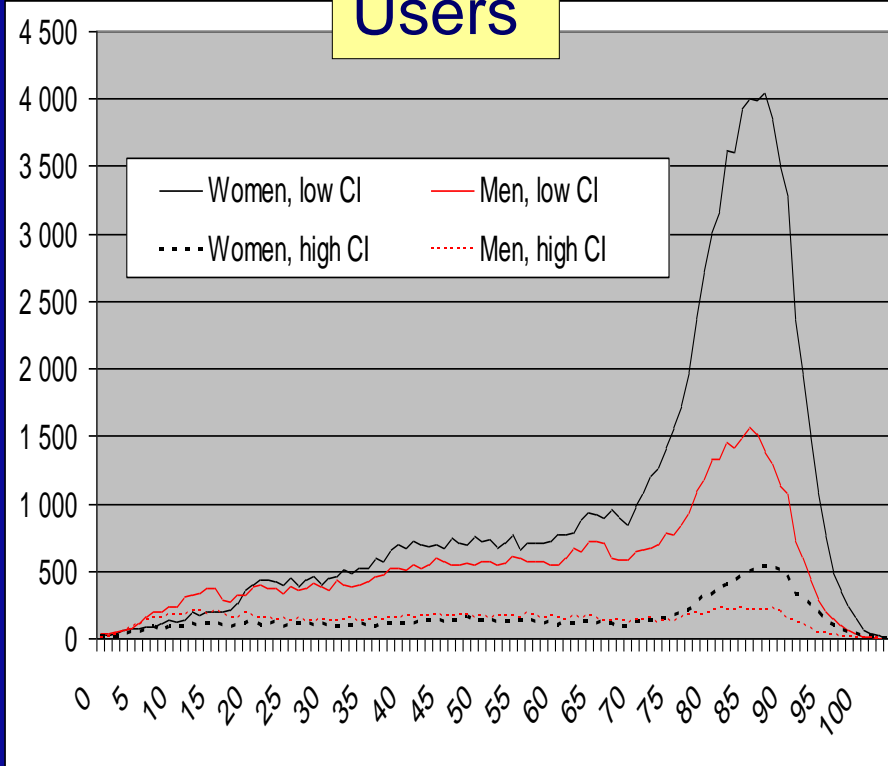
1. Ageing

- Not very strong
- Due to lower mortality 70+

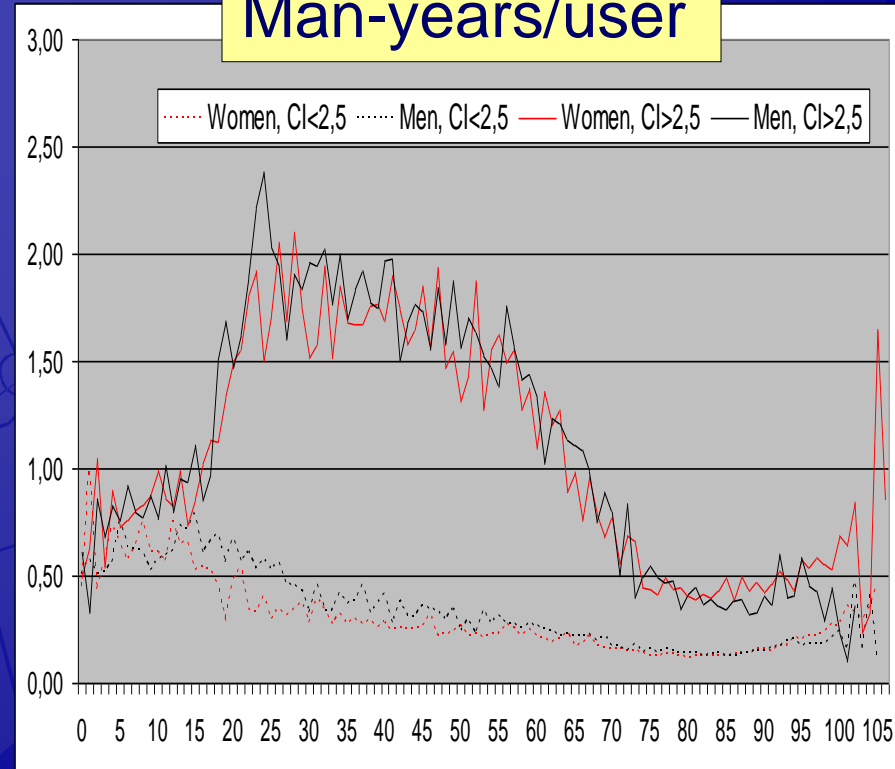
2. Immigration particularly uncertain

Homebased LTC

Users

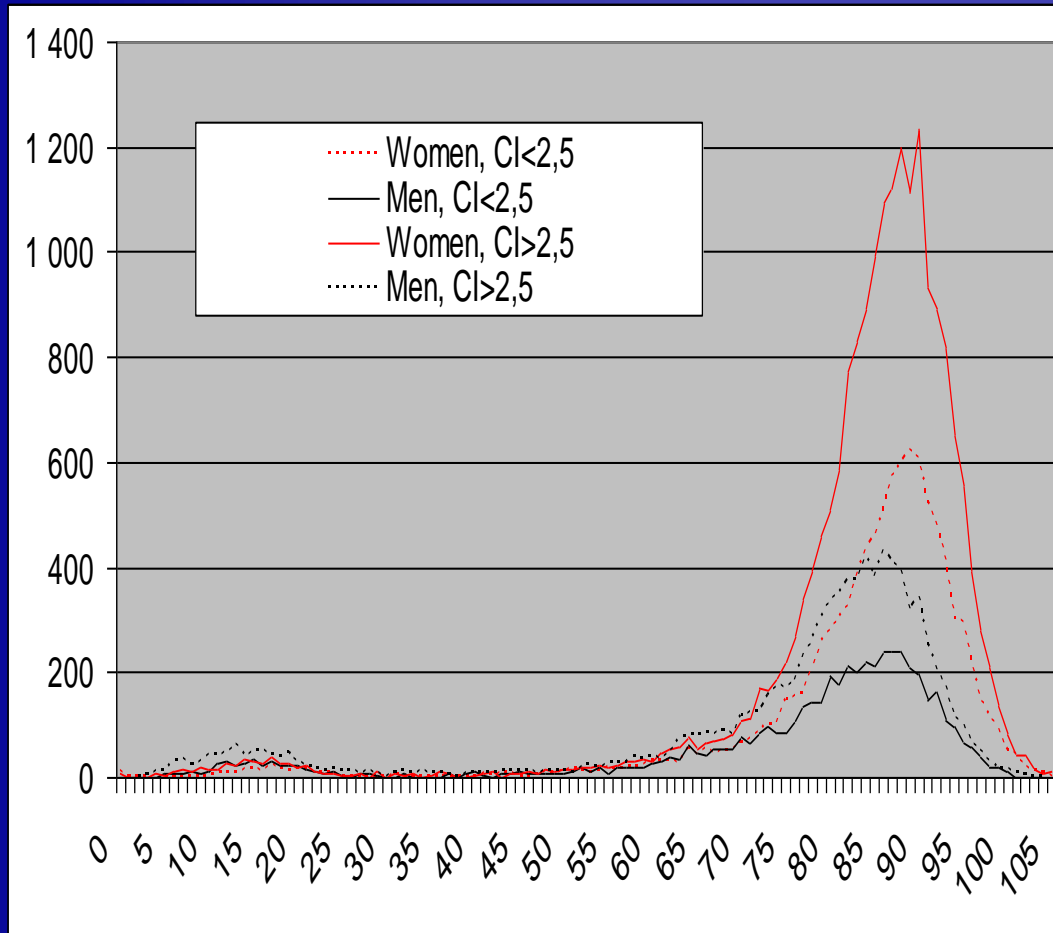


Man-years/user



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

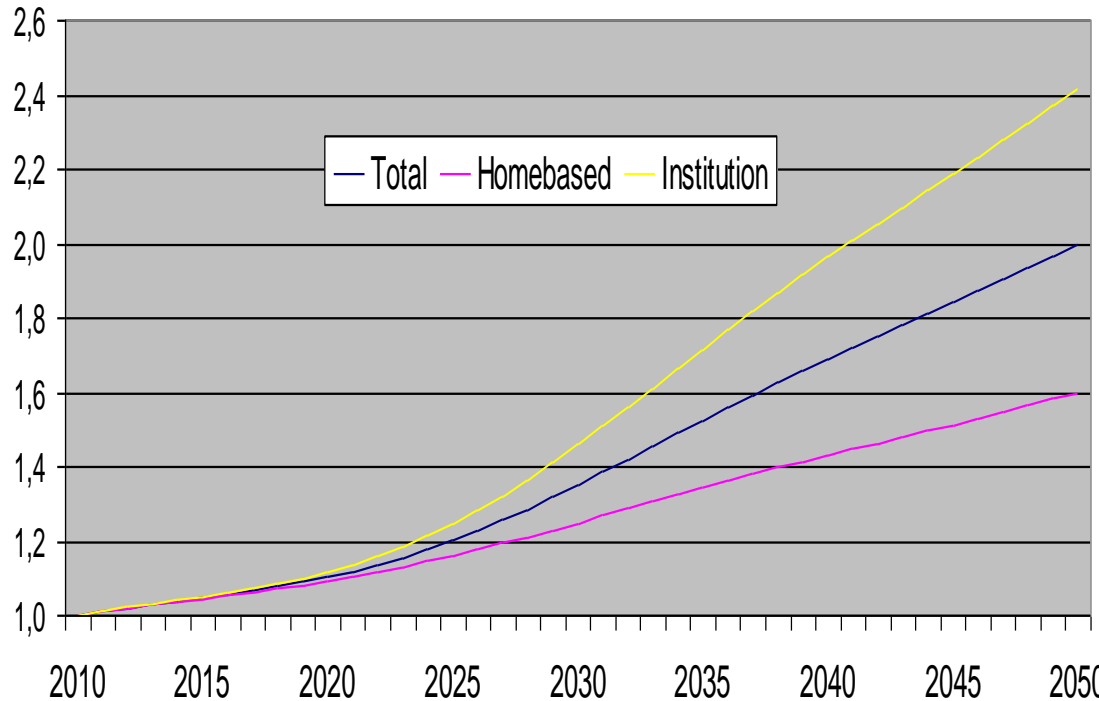
Residents in LTC institutions



- ❖ Most users 75-90 years
- ❖ Women use more than men...
- ❖ ... because they have high cognitive impairment
- ❖ **No info on individual use of resources**
- ❖ **Sector average: 1,4 man years per user,**
 - ♦ 0,35 in home based

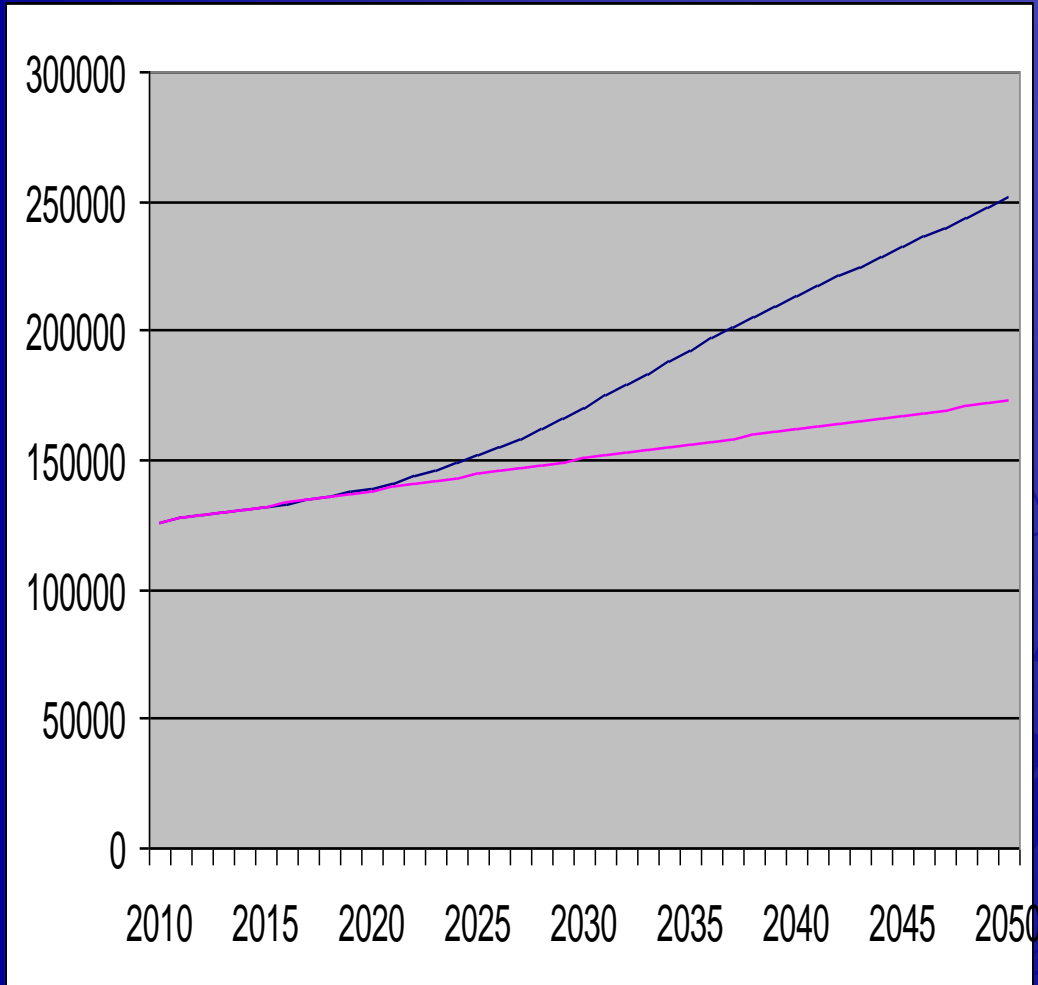
Future growth in LTC Employment

LTC, indexes, 2010 = 1 (4,8% of total employment)



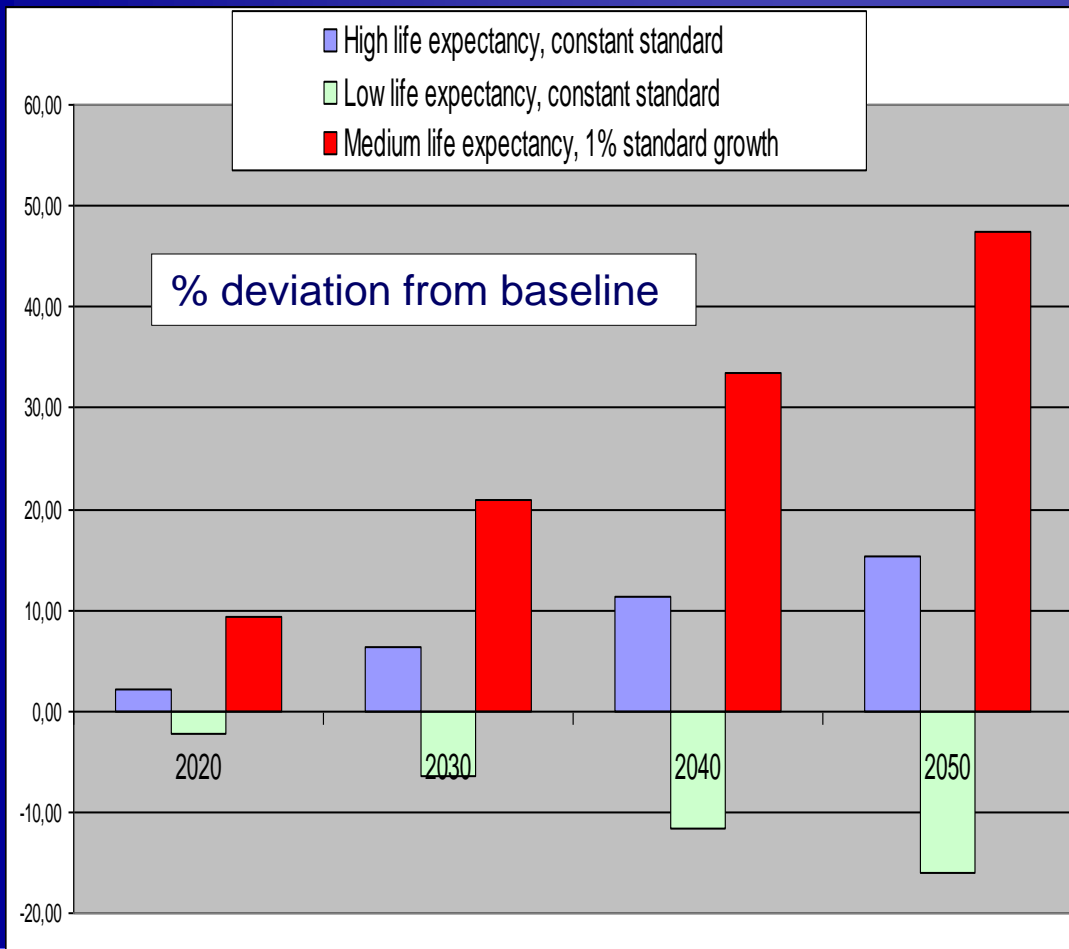
- ❖ Medium demographic growth
- ❖ No changes in health and standards
- ❖ Doubling of LTC employment 2010-2050
- ❖ Strongest growth in the oldest age groups
 - ◆ Institutions 150 %
 - ◆ Homebased LTC: 60%
- ❖ Institutions are most expensive => positive composition effect

Composition effects on LTC employment



- Strong effect of increased share of individuals 80+ years
- Other composition effects are small
- Depend on the covariance between group differences and group shares of population

Effects of mortality and service standards on LTC Employment

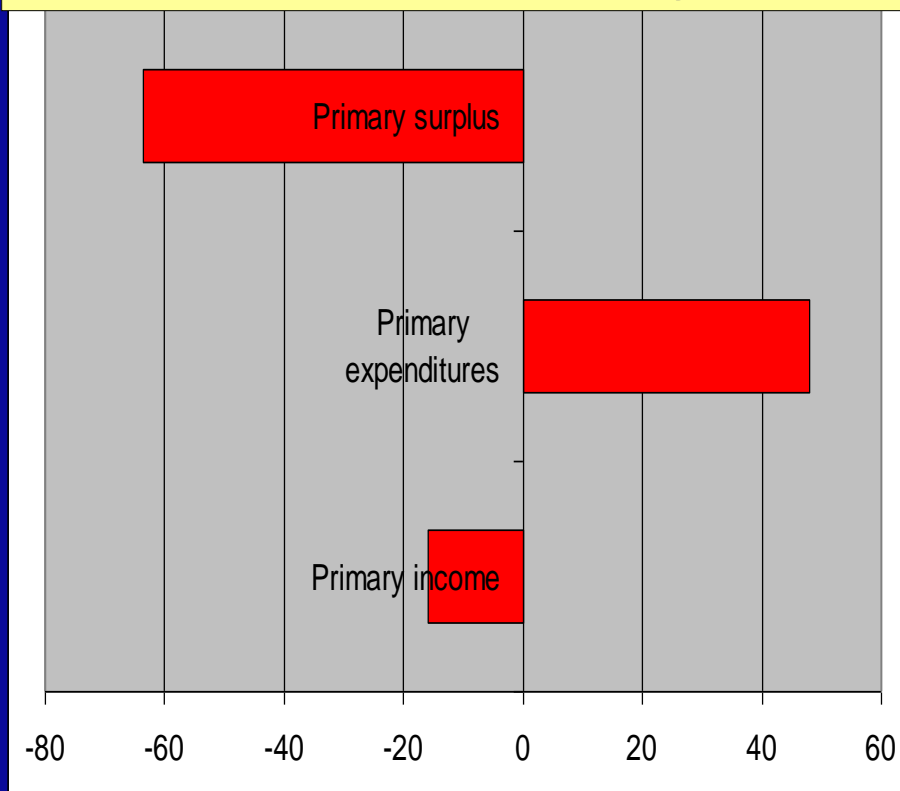


- ❖ Life expect. at birth
 - ♦ 2011, M/W: 79/83
 - ♦ 2050:
 - Medium: 85/88
 - High: 87/91
 - Low: 81/84
- ❖ NB: No change in health status

Fiscal effects of 1% growth in LTC standards. 2050

Deviations from baseline

Billions NOK, 2006-wages



Shares of budget effect, %

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

Soc. Insurance etc. enters both taxes and consumption

Discussion

- ❖ Reduced tax bases accounts for close to $\frac{1}{4}$ of the primary budget effect. Robust result given our assumptions
- ❖ This equilibrium effect can compete in magnitude with many other improvements
 - ◆ e.g. health among the elderly, death related costs
- ❖ The tax effect would have been larger if tax rates were increased to finance standard improvements
- ❖ Depends on labour supply
 - ◆ Does not change in our simulations
 - ◆ Income effect depends on how public LTC enters individual utility functions
 - ◆ Substitution effect depends on how improved standard is financed
- ❖ Improved service standards are likely and important for long run fiscal sustainability
 - ◆ Hardly reversible
 - ◆ => The costs of given standard improvements grow substantially over time with the number of users
 - ◆ => Priorities today must take future cost effects into account