

AG projection table 2010 -2060

Modelling longevity

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Agenda

- Some history
- New model
- Differences with the old model
- Results and conclusion
- Next steps

Dutch Actuarial Association

- Provider of mortality tables
 - initially 5 yearly period tables until 2005
 - from 2005 publication of AG projection table
- First AG projection table for period 2005-2050

Characteristics projection table 2005-2050

- Projection based on the 5 year tables of 2000-2005 until 2050-2055
- Model is only focussed on the real long term mortality trend
- Continuation of the last significant change in trend (1988)

2010: New projection table



Why new projection and new model?

- Strong decrease of mortality since 2001 a.o. because of:
 - lifestyle (less smoking)
 - medical developments (cardiovascular diseases)
- Strong decrease disrupts linear models
- Deviation in projected and real mortality trends

Difference old and new projection model

- Update data
- 2 year tables instead of 5 year
- Scope until 2060 instead of 2050
- Not only long term trend, but also short term trend

Short term and long term trend

Short term:

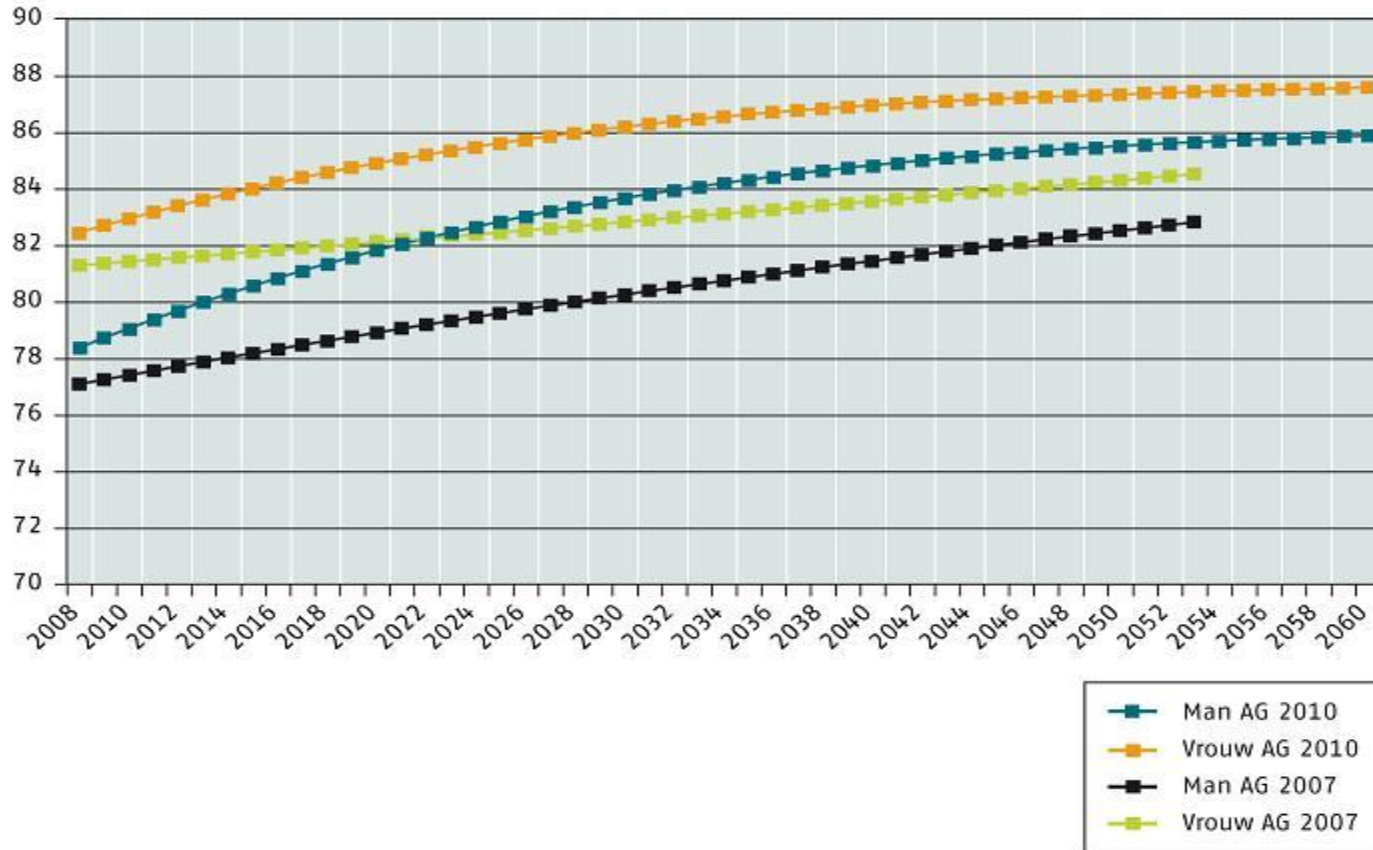
- To reflect strong decrease in mortality in projection table

Long term (goal table):

- Not likely that strong decrease will continue during a (very) long period of time

Old vs new projection (1)

Figuur 10



Old vs new projection (2)

Old projection (2005-2050)

Life expectancy 0-year olds: in 2050

- 82,5 for male
- 84,3 for female

New projection (2010-2060): in 2050

- 85,5 for male
- 87,3 for female

Conclusion

- Continuing decrease of mortality probability (significant decrease from 2001)
- Continuing increase in life expectancy

Results foreign countries

Projection comparing foreign countries in 2050
(mostly based on observation in 2006)

<u>Country</u>	<u>Male</u>	<u>Female</u>
<i>Netherlands</i>	85.5	87.3
Austria	84.2	88.1
UK	84.5	88.1
Sweden	83.8	86.3
Ireland	86.5	88.2
Japan	83.4	90.1

Consequences pension funds

- Increase of technical provision for pension liability
- AG projection (2010): approx. 8% for an average pension fund compared to old projection table

So: hot item and exposure

Dutch Actuarial Association and its president in the centre of media attention

Opening item in prime time broadcast of national news

(show short film on background:

<http://nos.nl/uitzending/21031-nos-journaal-2000-uur.html>)

Future steps AG

- Develop stochastic model
- Develop model for mortality probability for specific parts of the pension fund population
- Monitor development life expectancy

And finally

Thank you for your attention