

# **Fiscal Sustainability – A Danish perspective**

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Seminar on long-term projections for  
assessing fiscal sustainability. Oslo,  
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# What-Why-How: Definition

- Hamilton and Flavin (AER, 1986) “..the government budget must be balanced in present-value terms”
- Blanchard et al. (OECD, 1990): “..sustainable fiscal policy can be defined as a policy such that the ratio of debt to GNP eventually converges back to its initial level”
- IMF (2002) “An entity’s liability position is sustainable if it satisfies the present value budget constraint without a major correction in the balance of income and expenditure given the costs of financing it faces in the market”.

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# What-Why-How: Definition

1. The government budget must be balanced in present-value terms
2. but this implies that any debt to GDP ratio can be sustainable
3. and that can increase the costs of financing

Therefore:

1. Fiscal sustainability is a necessary but not a sufficient condition for sound economic policy
2. Fiscal sustainability has to do with the long run
3. We need other measures in the medium run

# What-Why-How: Definition

Current policy is fiscally sustainable if:

- Discounted revenues = initial debt + discounted costs

Measuring lack of fiscal sustainability (indicator):

- How many percentage of GDP should the public sector receive every year - for ever - to make the current policy sustainable



# What-Why-How: Purpose

- Testing the internal consistency of the policy makers
- = Is current economic policy sustainable given the way we think about the future?

This test is good for:

- 1) Policy makers
- 2) Everybody else: Openness, democracy

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# What-Why-How: Purpose

Two basic questions:

- 1) Who defines "the way we look at the future"?
- 2) Is it dangerous to think about the future as if we know it?

Hard to answer, but

- Openness seems to be very important (in Denmark "principles of calculations" are public)
- The system should be able to analyze alternative scenarios
- External access to the system might be a good idea

# What-Why-How: DK-Institutions

- Ministry of Finance (FM)
- The Economic Councils (DØRS): 'Watch dog'
- DREAM. Model builders and forecasters
  
- FM has their own system based on the model ADAM (Lars will be telling about it)
- DØRS (and many others) use DREAM
- New model MAKRO in the pipe line: Build by DREAM for FM

# What-Why-How: Basics

The short version:

- 1) Forecast public costs and revenues
- 2) Calculate an indicator of fiscal sustainability

Problem: 1) implies forecasting almost everything you can think about

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# What-Why-How: Basics

- Demographic forecast



- Education forecast



- Socio-economic forecast



- OLG model (DREAM)



Pre-models

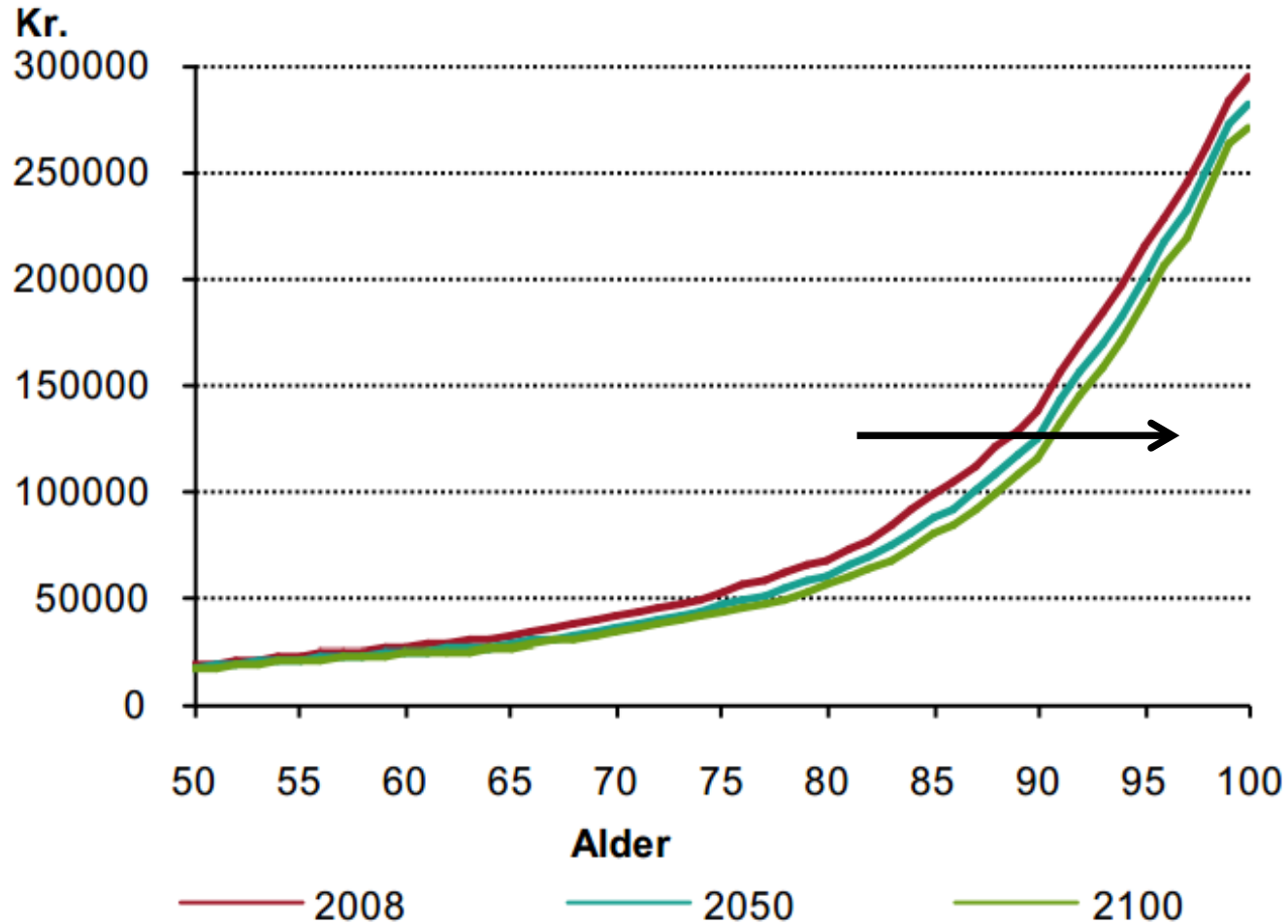


# What-Why-How: Forecasts

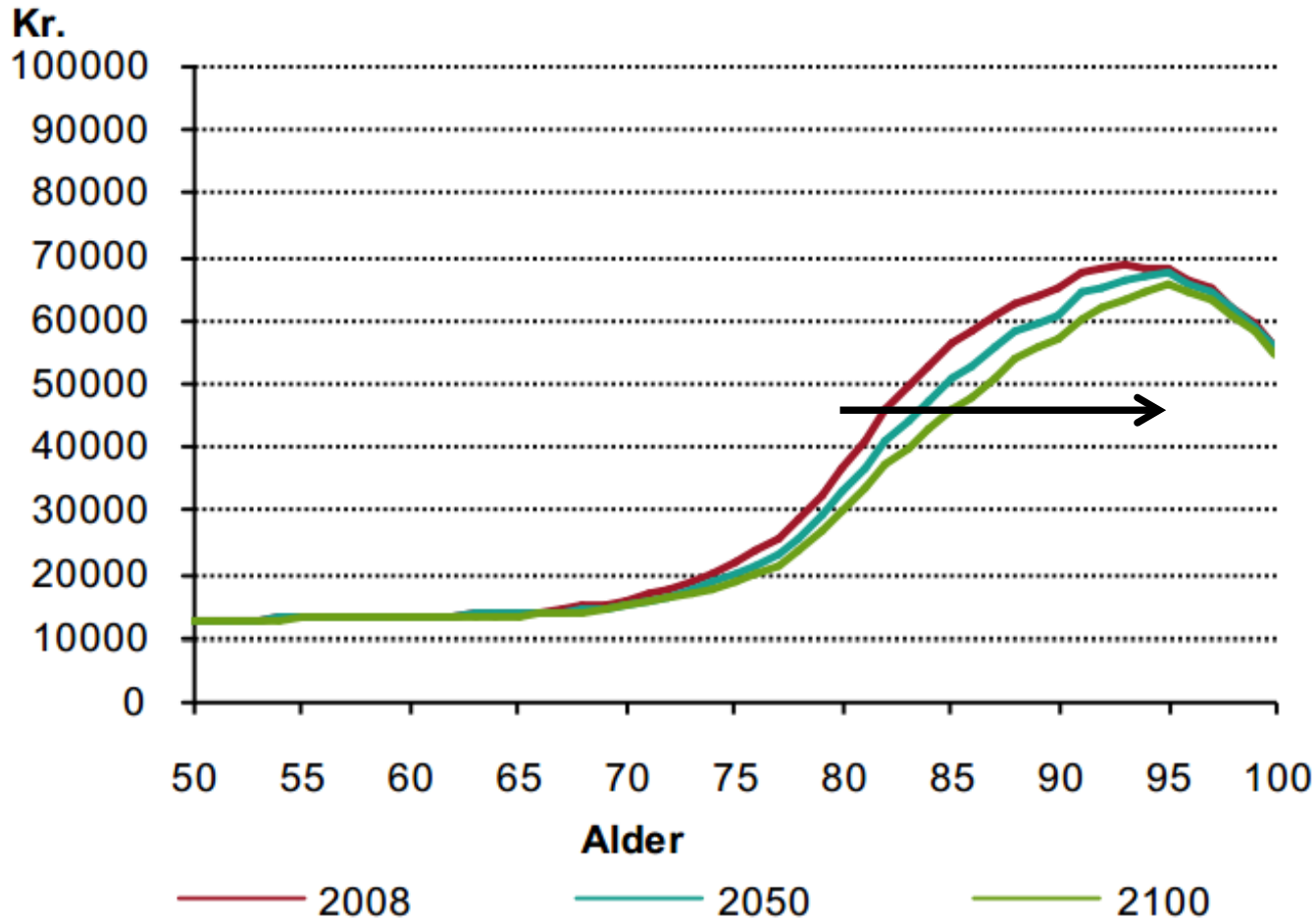
## Demographics

- 1) Life expectancy (aging)
- 2) Immigration
- 3) Healthy-Aging-assumption (as OECD)
- 4) From register data: Individual public costs (Education, health, care, social)

# What-Why-How: Health costs



# What-Why-How: Social care



# What-Why-How: Education

- Effect of increased education level on labor market participation (only 1/3-effect based on econometrics)
- Effect on productivity is assumed to be part of the general productivity growth in the base scenario (1.5% labor augmenting technological progress)

# What-Why-How: Socio-Economics

- Labor force and people receiving public transfers (education, cash benefits, public pensions ect.)
- Welfare- and retirent reforms in Denmark since 2006 (indexing retirement age with life expectancy of a 60 years old)
- Labor marked pension are important in Denmark (“should we tax now or later?”)

# What-Why-How: Macro model

Why do we need a model?

- 1) Being able to shock the system
- 2) Forecast of taxes and subsidies
- 3) As part of this: forecast of the demand side
- 4) In DK: Labor market pensions

# What-Why-How: Macro model

Ministry of Finance: Best base scenario. Hard to shock the system (alternative scenarios)

DREAM: Simpler base scenario. Easy to shock the system

MAKRO: The best of both worlds!

# Thank You!

DREAM