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The Danish pension system: Performance, strengths and challenges

Presentation at “*Seminar on pension systems in Denmark, Iceland, and the Netherlands*”, organized by the Icelandic Pension Funds Association, Reykjavik, 13 October, 2022

Svend E. Hougaard Jensen, Ph.D.

Professor, ECON, CBS
Director, PeRCent, CBS
Non-resident Fellow, Bruegel

- **Design and performance**
- **Strengths**
- **Challenges and new reforms**

Design of the Danish pension system

Three pillars

- **Pillar 1:**

- PAYG, DB
- Basic flat-rate benefits
- Means-tested supplements

- **Pillar 2:**

- Funded, DC
- Occupational pension (OP) schemes: employment relationship or collective agreement between social partners
- Arbejdsmarkedets Tillægspension (ATP): compulsory, all contribute; relatively low contribution rates

- **Pillar 3:**

- Private, individual saving schemes
- Flexible and voluntary
- Banks and insurance companies

Performance of the Danish pension system

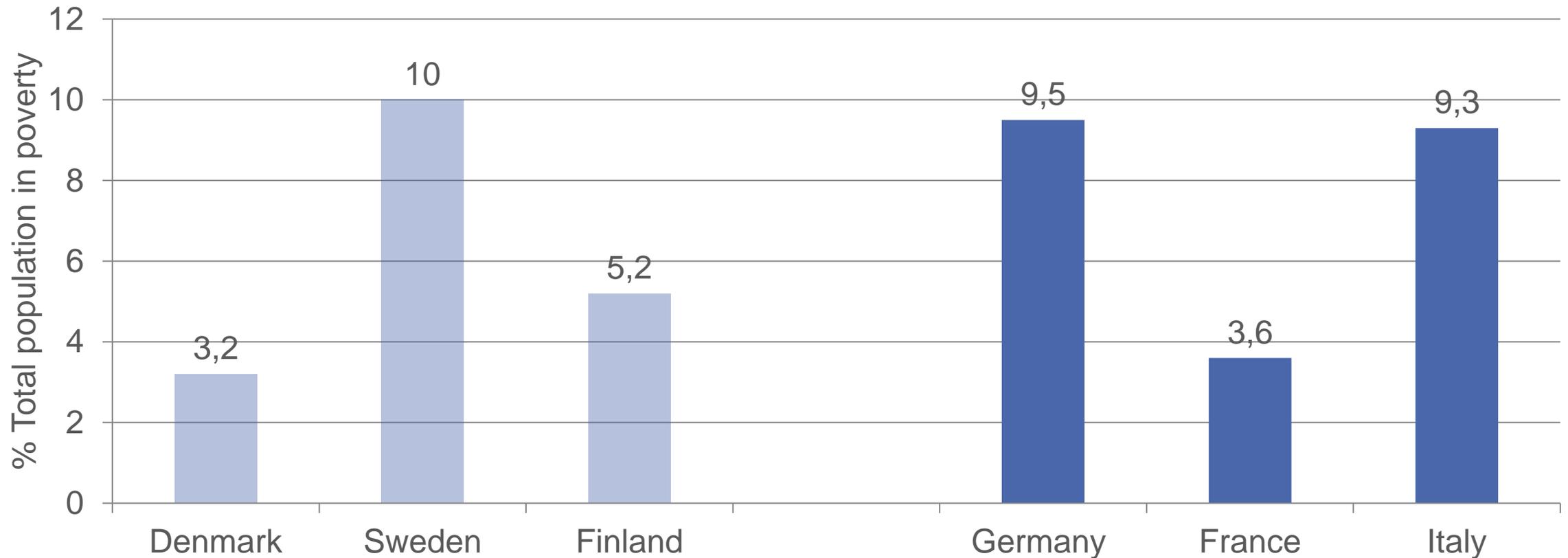
Track record

- It effectively prevents old-age poverty (*distributional* objective);
- It offers reasonable *replacement* rates for most pensioners, i.e., a fair balance between pensions and previous income (when working) to allow for *consumption smoothing*; and
- It is financially *sustainable* in the long term...
- So, by many, considered as a *role model* (Mercer)...

Risk of poverty among the elderly?

Share of elderly in the low-income group is low...

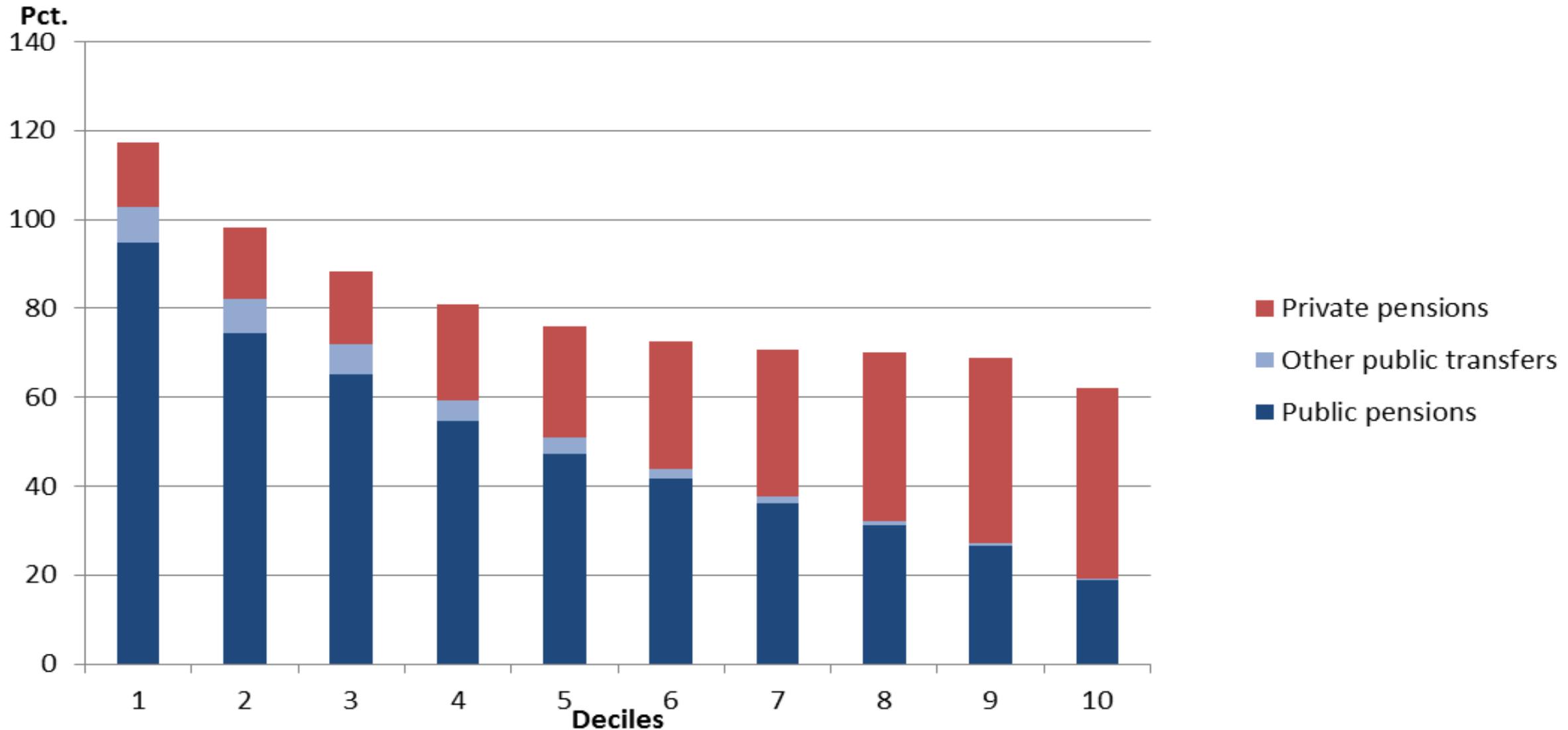
Percentage of people 66+ with incomes less than 50% of median household disposable income (2014)



Source: OECD

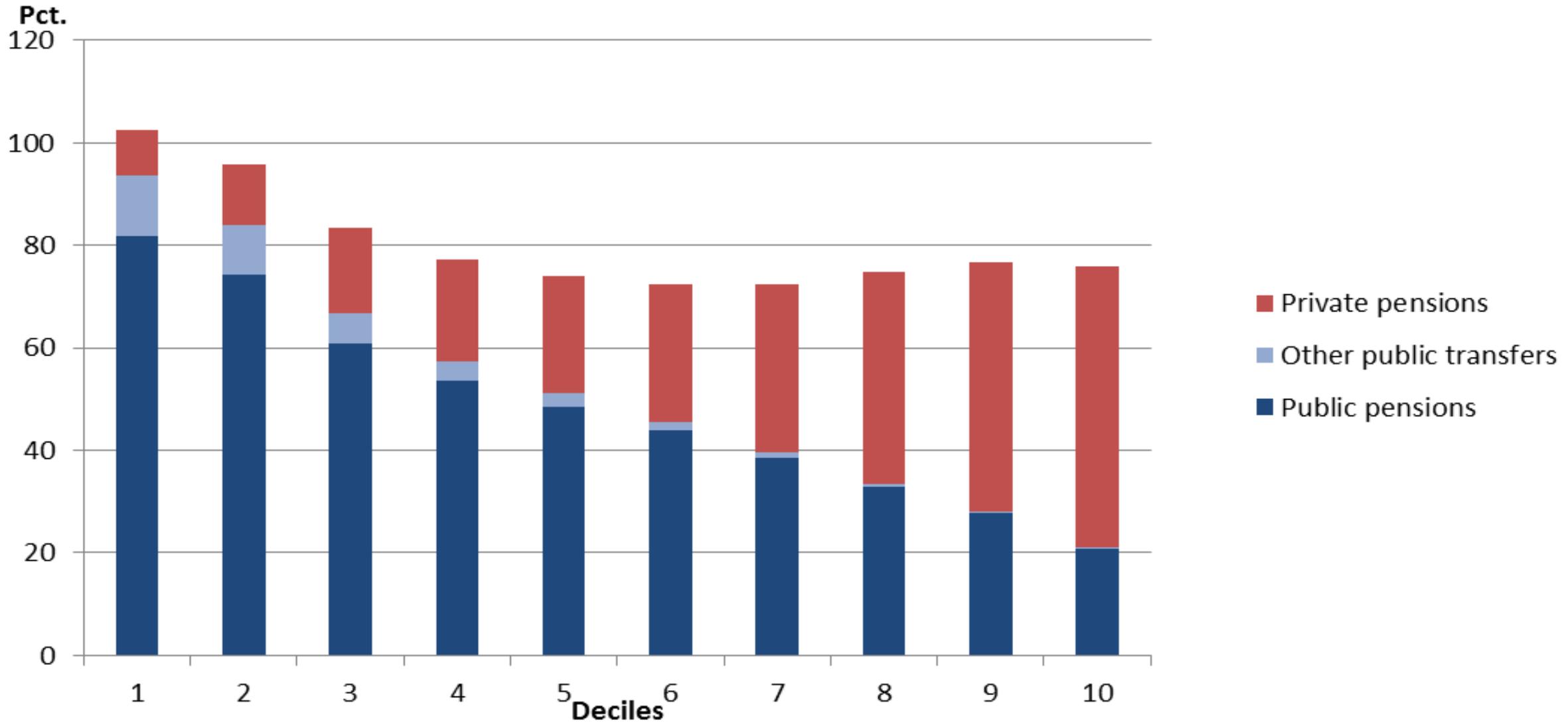
Net replacement rates across the *income* distribution

A decreasing curve... Good or bad? Well, depends...



Net replacement rates across the *wealth* distribution

No longer a negative slope: J-curve - or U-shaped...



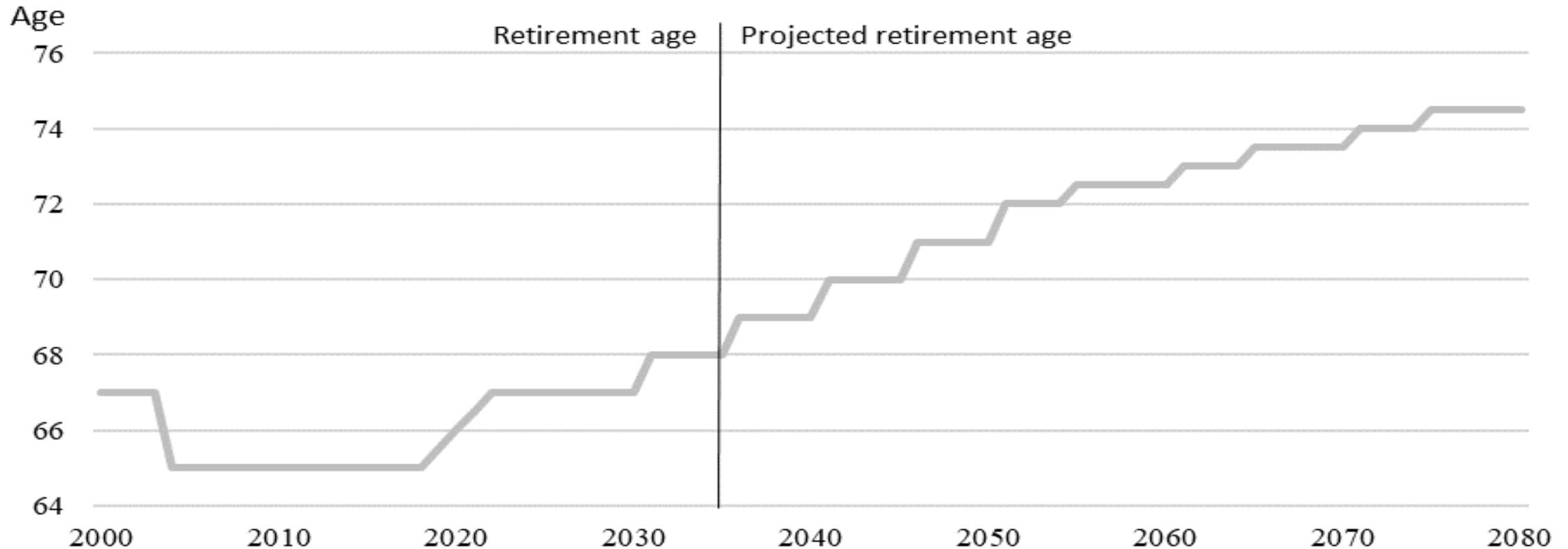
Important feature of the Danish pension system: Implicit insurance effect

Mainly a protection of retirees with low benefits/payouts...

- Changes in private pensions due to a lower return on pension savings are *shared* with public pensions.
- Households ending up with lower private pensions receive more from the public system.
- However, since means testing applies to relatively low incomes/pensions, there is an *asymmetry* in the insurance mechanism.
- In the case of a *higher* private pension, means testing *ceases at some point*, implying that further increases in private pensions benefit the individual (low effective tax).
- The *implicit insurance* created via means testing and taxation is thus mainly an insurance against *downside risks*.

Official retirement age in Denmark under current rules and expectations

Scheme goes back to welfare reform in 2006



Source: Danish Rational Economic Agents Model, DREAM

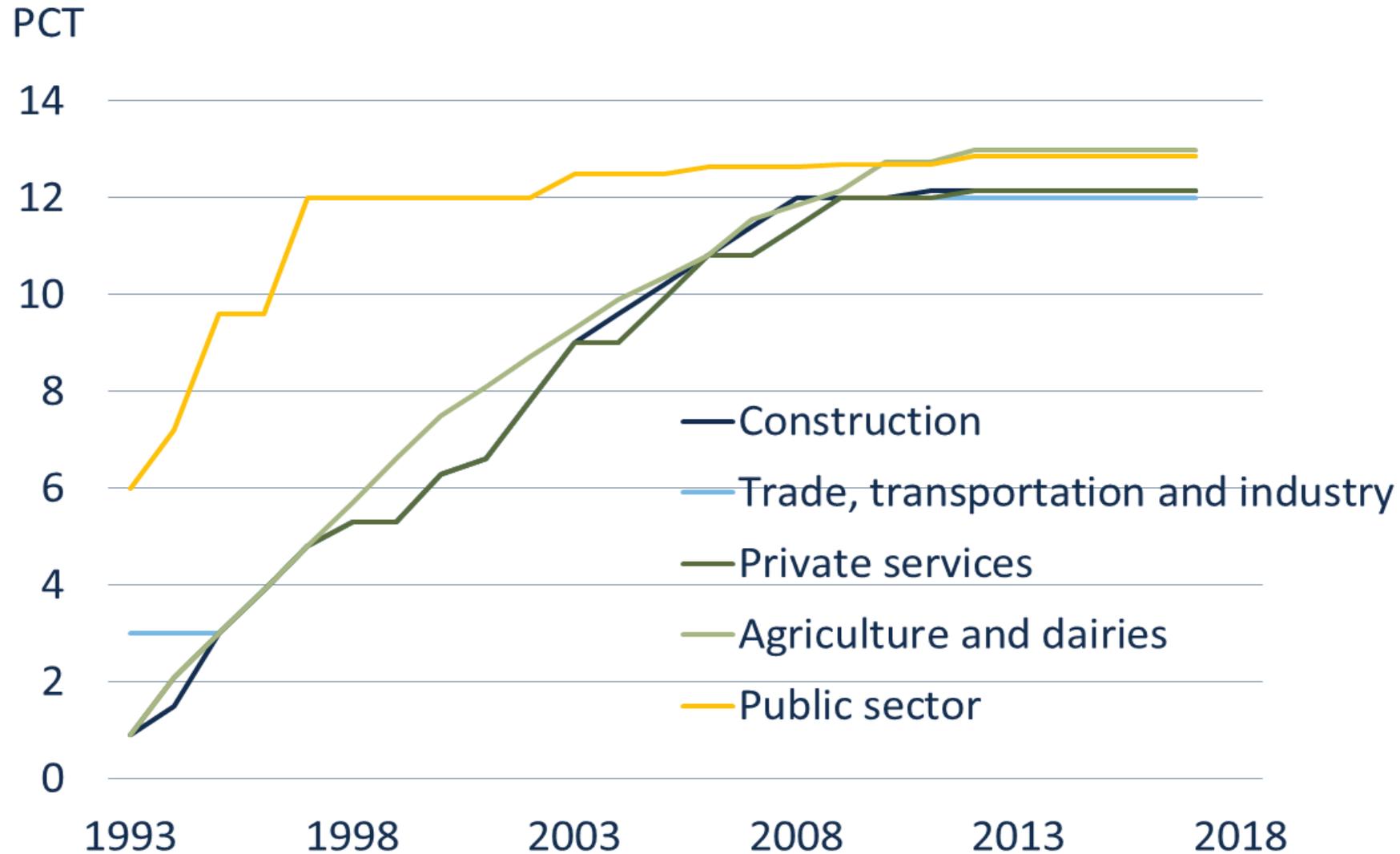
Share of labour force who contribute to OP schemes, 1985-2018

Covers a very large part of the labor market...



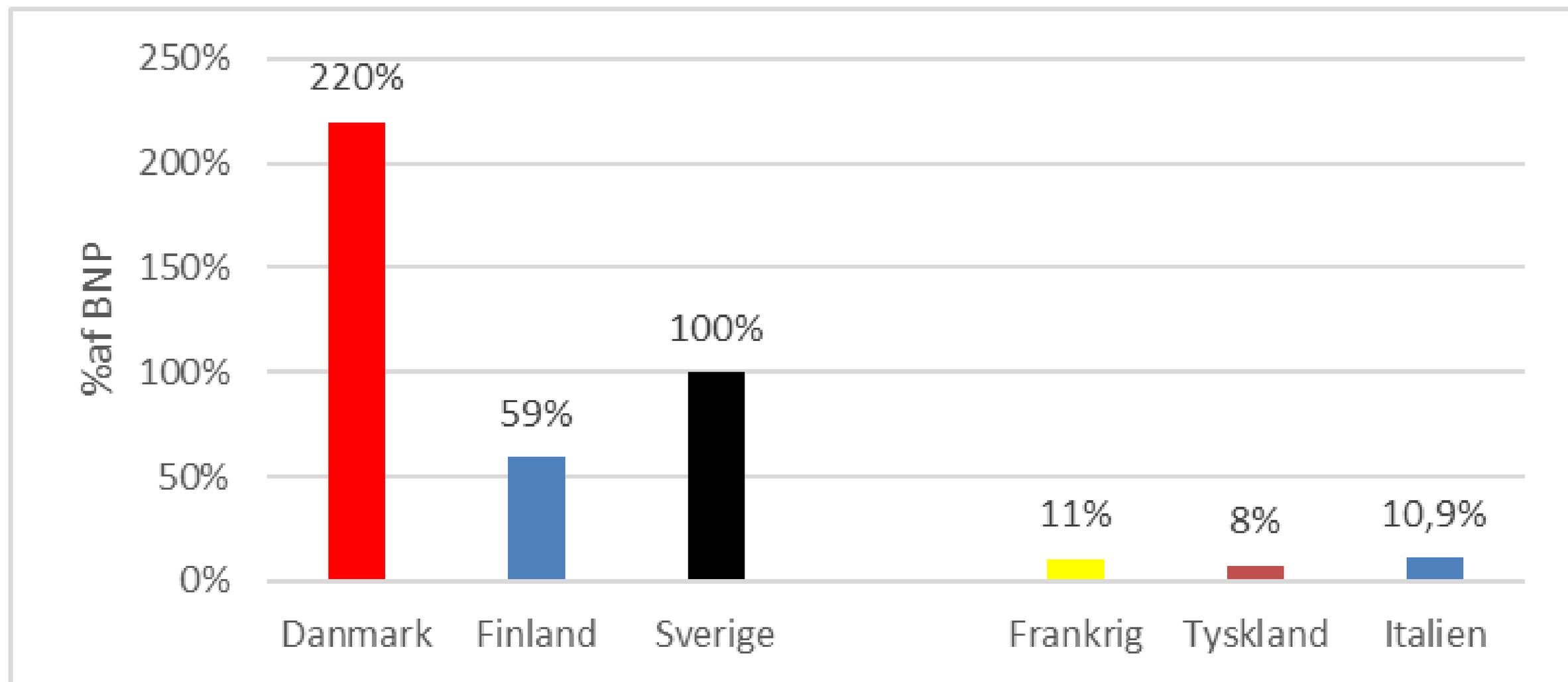
Contribution rates to OP schemes for selected groups

Blue-collar workers also part of it...



Accumulated pension savings; share of GDP (%); 2019

High in the Nordic countries – and low in major EU countries...



Fiscal sustainability in Denmark

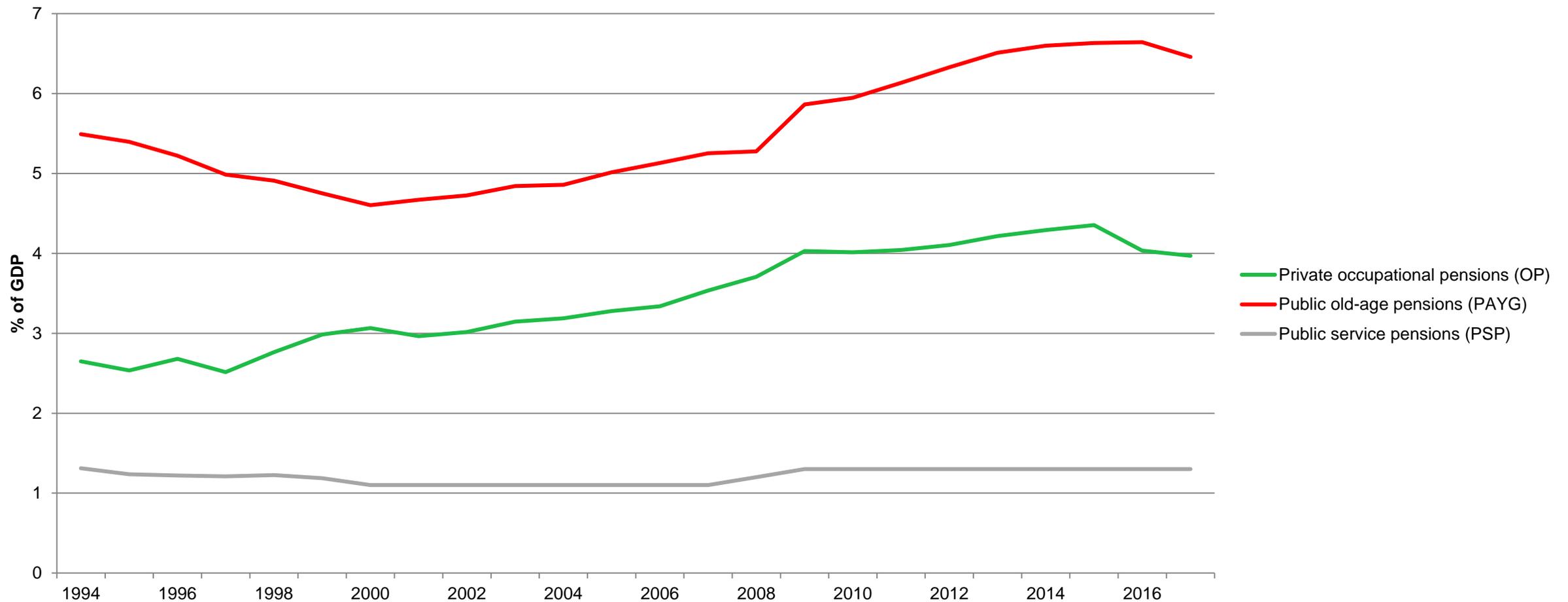
Pension system plays a key role...

- **Ministry of Finance, Autumn 2021:**
 - Sustainability indicator: +1.1
- **Danish Economic Councils, Autumn 2019:**
 - Sustainability indicator: +1.8

Public and private pensions in retrospect (1994-2017)

Building occupational pensions...

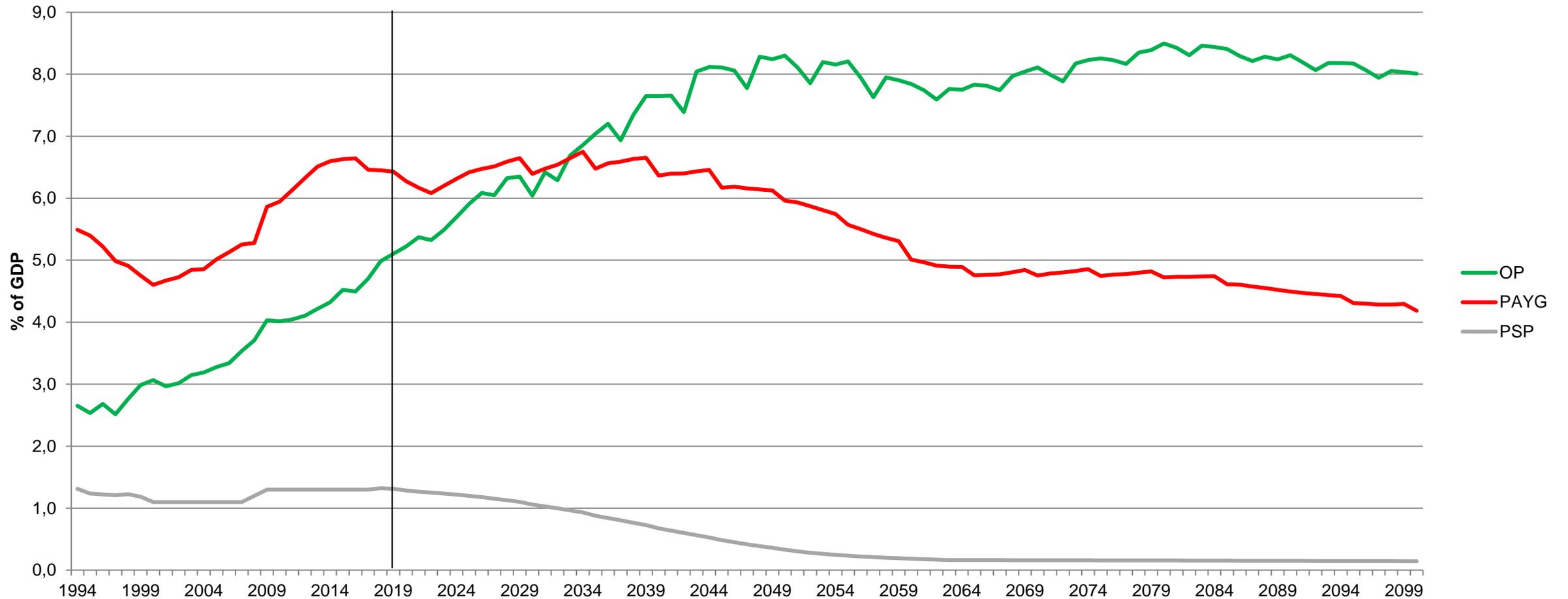
Pension benefits/payouts, % of GDP



Public and private pensions in prospect (2017-2100)

Privatization is well underway...

Pension benefits/payouts (share of GDP)



Public and private pensions in prospect (2017-2130)

Privatization well underway...

- We show that:
 - Public, PAYG schemes constitute a falling share of GDP in the future...
 - Private, OP schemes constitute an increasing share of GDP in the future...
 - OP schemes will dominate PAYG schemes app. 15 years from now...
 - (Public service pensions are being (almost) phased out...)

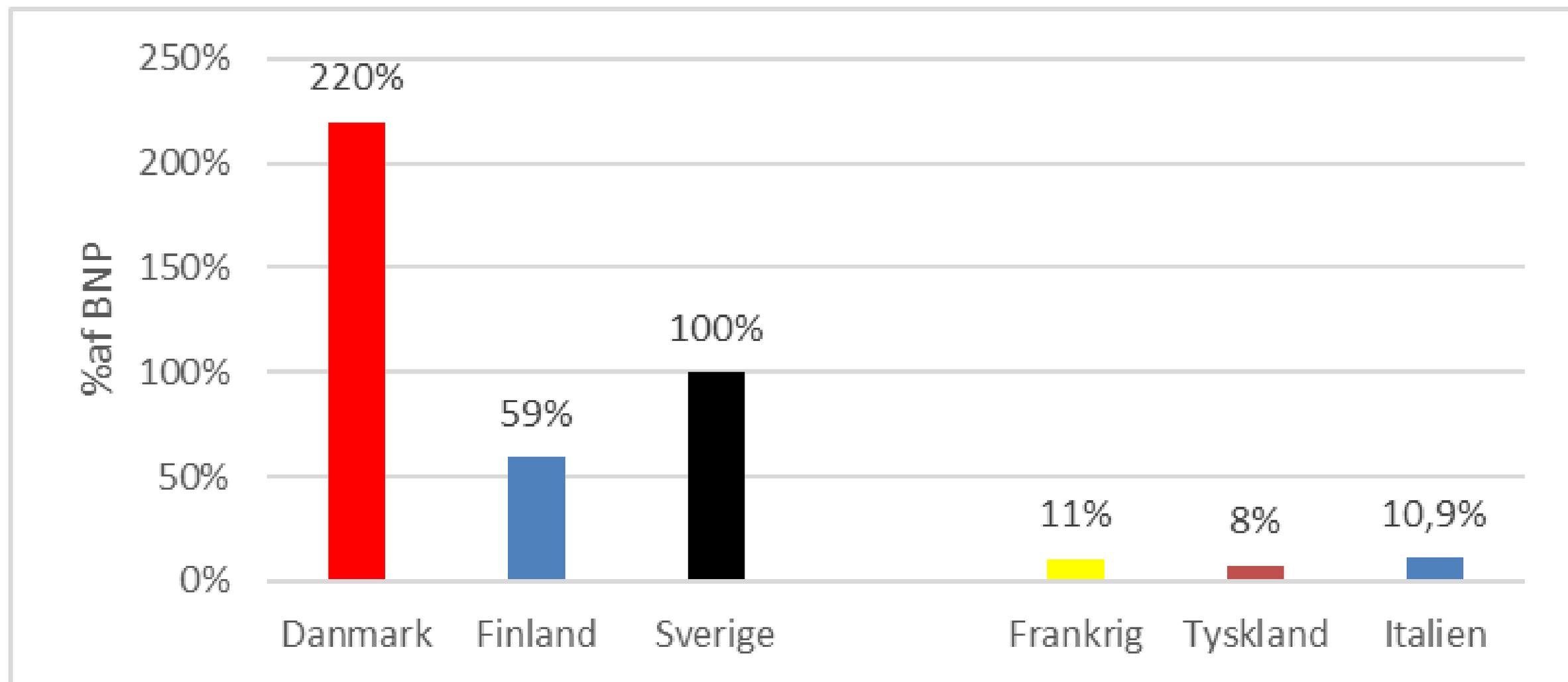
Challenges

Need for a regular, systemic check of the whole system...

- It is important to regularly *check* if the underlying *incentives* and *rules* of the pension schemes are compatible with the stated *goals*...

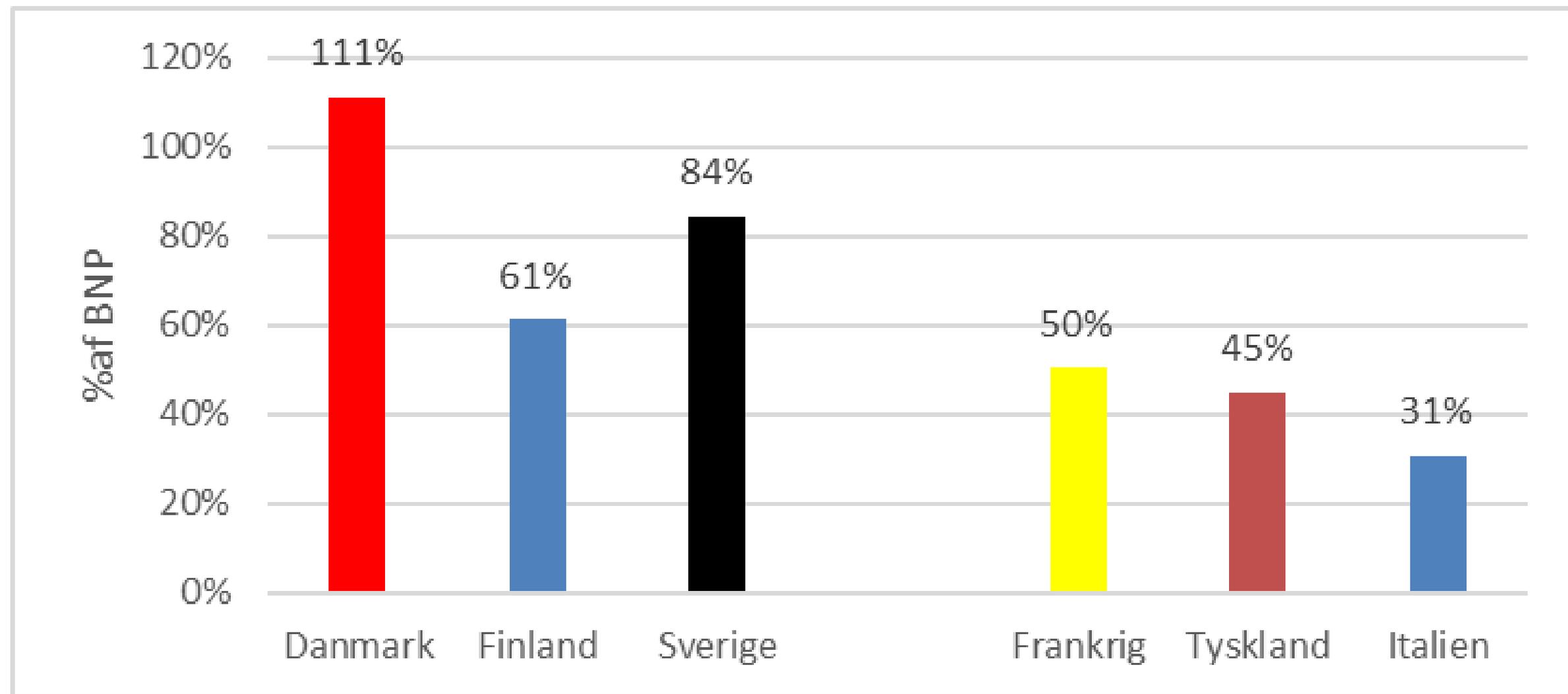
Accumulated pension savings; share of GDP (%); 2019

Denmark has the highest accumulated pension savings in the world relative to GDP...



Household financial liabilities; share of GDP (%); 2019

Denmark's household sector is highly indebted...



Balance sheet expansion

Makes sense?

- While it may seem sensible to force people to save in a certain place, this often means that *exactly the same* people are forced into large debt positions.
- It is worth noting that although Denmark's pension system is found to be *among the world's best* (# 3 now), Denmark is also a country with *record levels in private households' indebtedness* (well, when pension savings are disregarded!)
- How can this be considered *rational – or desirable?*

Balance sheet expansion

DK and the financial crisis

- Remarkable that *Denmark was relatively hard hit by the financial crisis*, given that it is a country with a large savings surplus, including a total pension wealth of more than twice its GDP.
- In the years leading up to the financial crisis, Denmark also had a significant surplus on the general government budget, which made it *possible to pursue a counter-cyclical fiscal policy* immediately after the crisis – and we actually did!!
- A *contributory explanation* for the relatively weak macroeconomic development during these years could be the *inflated balance sheets in the household sector*, including an *entirely illiquid pension wealth* that could not be brought into play as a smoothening device.

Addressing balance sheet expansion: Making the system more flexible

Two options: lower pension contributions or mortgaging the pension assets

- Model 1:

- An age-dependent savings profile.
- Contributions start later than now and increase over time.
- Allow younger households to keep more of their current income in return for saving more in later life...

- Model 2:

- Access to mortgaging a certain proportion of the pension assets.
- For example: 50% of total pension savings.
- This would give almost DKK 200k to a 40-year-old – and twice that for a couple...
- But be careful: can affect the pension funds' investments in a negative way (“long-termism”)..

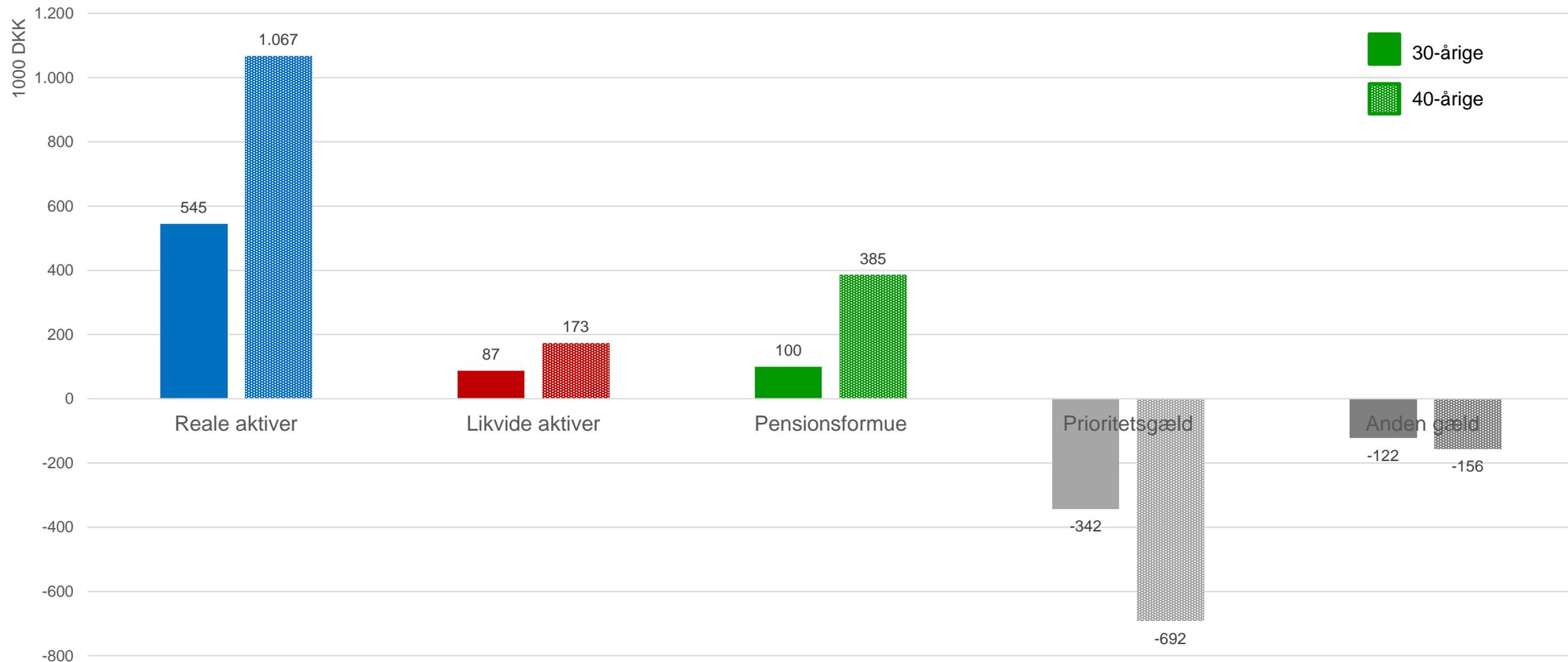
Making the system more flexible

Model 1: Age-dependent contribution rates

- For many people, it is a well-known fact that the liquidity constraint is *particularly binding* during the period in which they establish a family, have expenses for children and want to enter the housing market.
- Younger people often find themselves in a situation where they pay into a pension scheme while simultaneously taking out large loans, such as when they enter the housing market.

Model 2: Pension saving as a source of financing your home

Let's have a look at an "average Dane" aged 30 and 40, respectively...



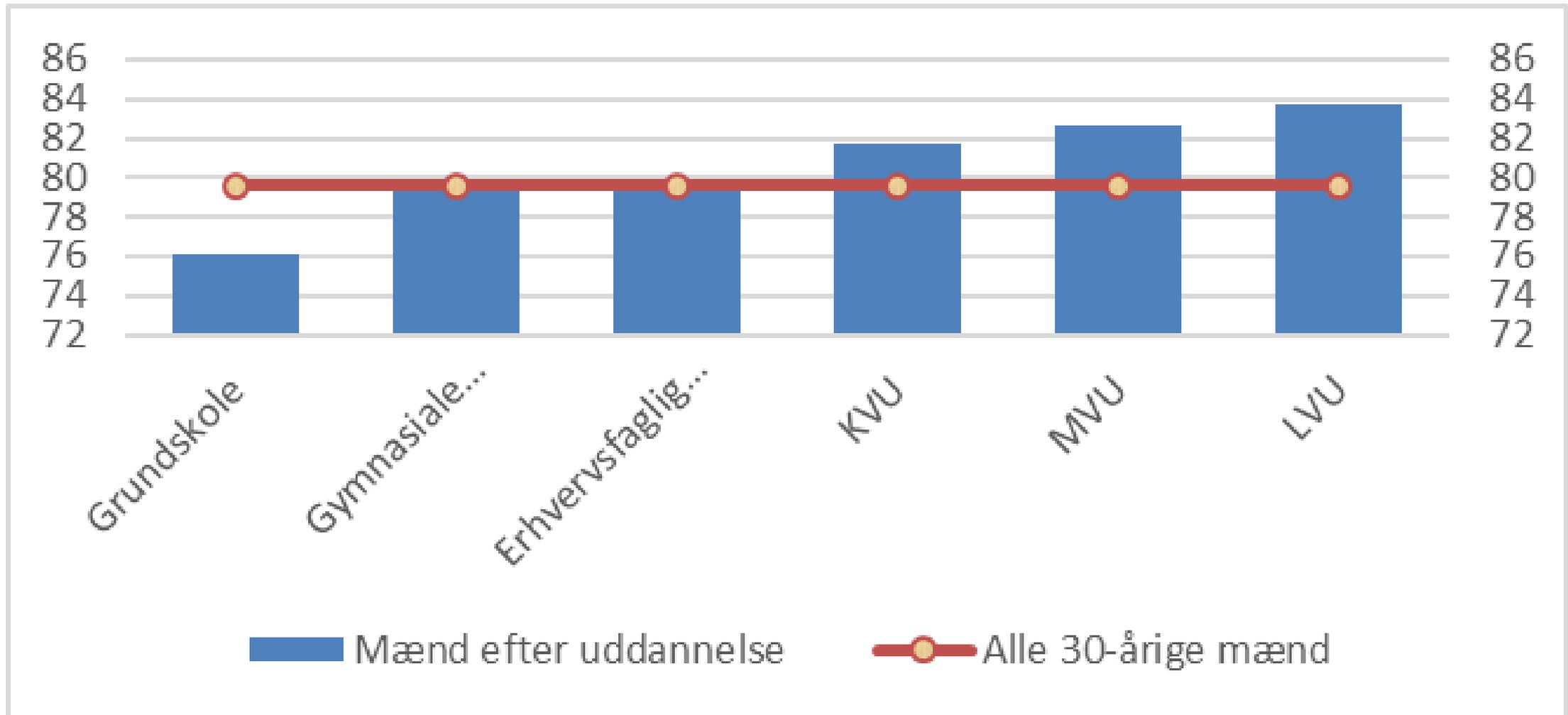
Specific challenges related to inequality in longevity

Need for early retirement schemes?

- What if there is a (large) group of citizens whose health and work abilities do not follow the general increase in life expectancy?
- Wouldn't it be wrong to disregard such inequality when adjusting the retirement age?

Longevity for 30 year old men, different educational groups

2014-18



Longevity varies across educational/socioeconomic groups:

A case for differentiated retirement age?

- Well documented that:
 - there is considerable inequality in longevity...
 - Highly skilled people have a longer life span than lower skilled: For those with a shorter education, there's typically a higher degree of attrition, which leads to a shorter lifetime.
- Some numbers:
 - In Denmark, a 30-year-old unskilled man can expect to reach 76.1 years, while a 30-year-old man with a long higher education can expect to reach 83.7 years.
 - For women, the numbers are 80.5 and 86.3 years.
 - This is a difference of 7.6 years for men and 5.8 years for women.

Longevity varies across skill types:

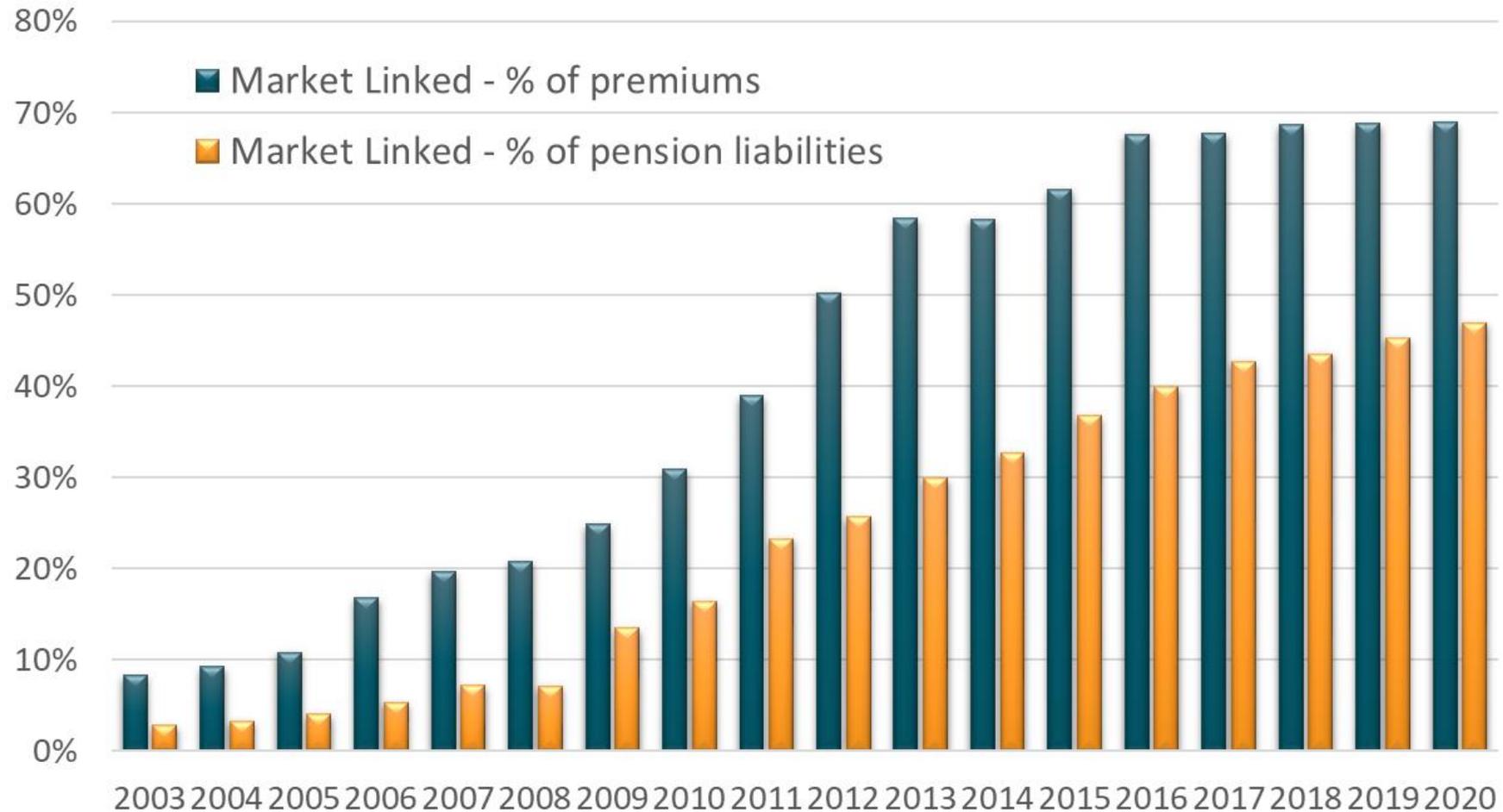
A case for differentiated retirement age?

- No indication that this gap in lifespans will narrow in the foreseeable future - on the contrary.
- This means that if we all have the same old-age pension age, then highly skilled people get a longer retirement period than lower skilled people.
- This has given rise to the idea of allowing an earlier withdrawal from the labour market for the lower skilled and work worn.
- Two important principles for such a model:
 - First, an early withdrawal scheme should be designed so that it doesn't undermine the welfare agreement. The welfare agreement is crucial for the sustainability of the Danish economy.
 - Second, public pensions should be based on an actuarial principle, so that the total pension benefit received throughout retirement is not significantly affected by the timing of retirement.

Lower interest rates and increased longevity: big challenge to pension funds

Shift toward unguaranteed products in Denmark

Development in market-linked* products



The future has become more risky for pension savers...

Shift from DB to DC...

- Nowadays, Danish pension schemes are predominantly of the DC type, i.e. the payment to the individual during retirement depends on the size of the contributions and the return on the savings.
- Previously, the return on pension savings was guaranteed, but today the majority of pension contributions go to market rate products.
- Market rate products are characterized by the fact that the return on the savings is not guaranteed, but depends more directly on the return on the financial markets.
- In this way, there has been a significant shift in who bears the risk of investments.
- Where previously it was the pension fund that bore the risk, it is now to a greater extent the individual member.

Further challenges

- Trade union density is falling...
- “Zeitgeist” against collective, mandatory arrangements...
- Need for better communication, especially about the shift away from guaranteed products...