



# Impact of Inequality on the Future Elderly Policy Tools and Actions Workshop

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# INEQUALITY DYNAMICS AND PROLONGING WORKING LIVES

Evidence from Global FEM for Belgium and Italy

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## Global FEM is:

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- a microsimulation model which was developed from US-FEM and EU-FEM for Belgium, Italy and the USA;
- an outcome of collaboration between the OECD, the University of Southern California Schaeffer Center for Health Policy and Economics and the University of Rome Tor Vergata Centre for Economic and International Studies (CEIS);
- developed by: Barbara Blaylock (OECD), Vincenzo Atella, Federico Belotti and Andrea Piano Mortari (University of Rome Tor Vergata), and Dana Goldman and Bryan Tysinger (University of Southern California).



## Presentation outline

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- Have health and labour market inequalities changed across cohorts born between early 1940s and late 1960s?
- Can pension, health and active labour market policies help prolong working lives and reduce cumulative inequalities?

HOW DO COHORTS BORN  
BETWEEN EARLY 1940 AND  
LATE 1960 DIFFER?



# Simulating three generations in Belgium and Italy

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- Born in early 1940s, turning 50 in early 1990s
- Born in mid 1950s, turning 50 in mid 2000s
- Born in late 1960s, turning 50 in late 2010s



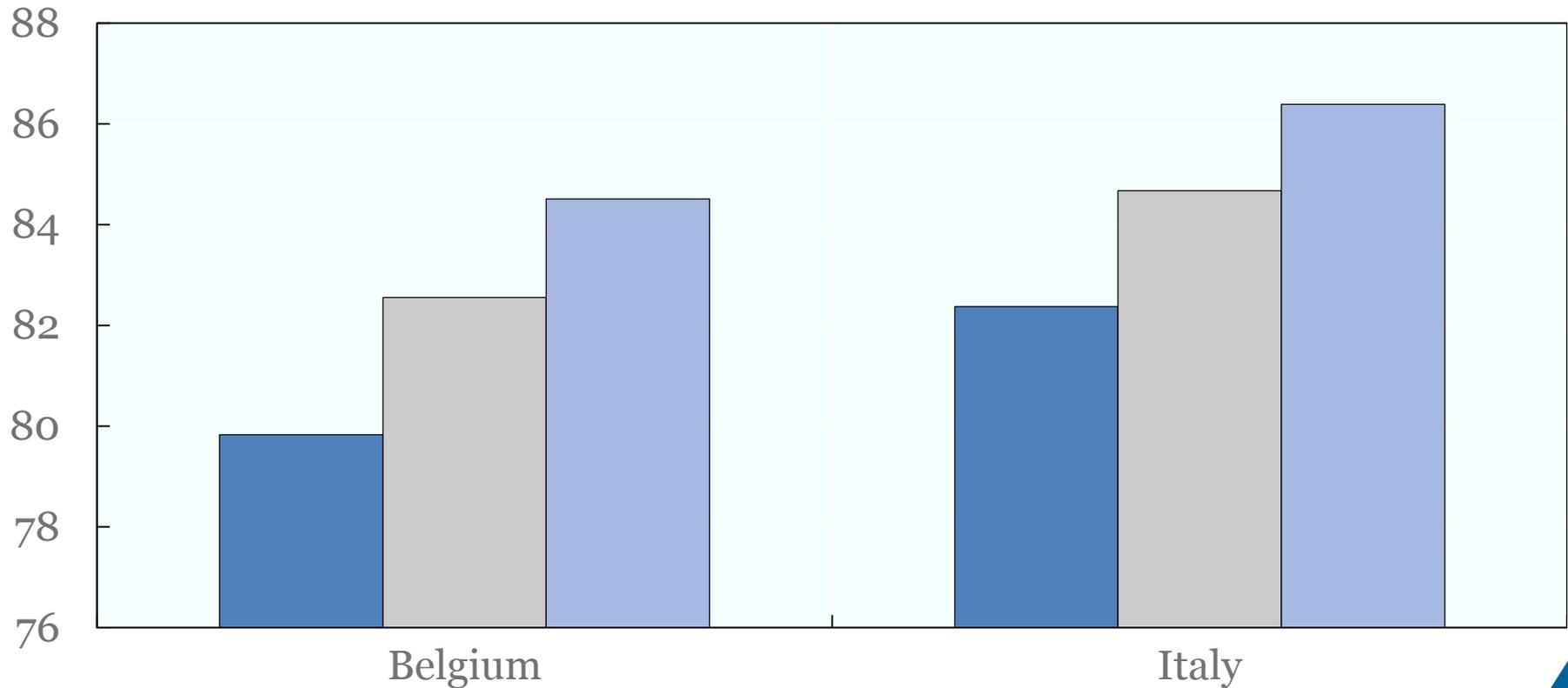
# Life expectancy increases by about 2 years across generations

■ early 1940s

■ mid 1950s

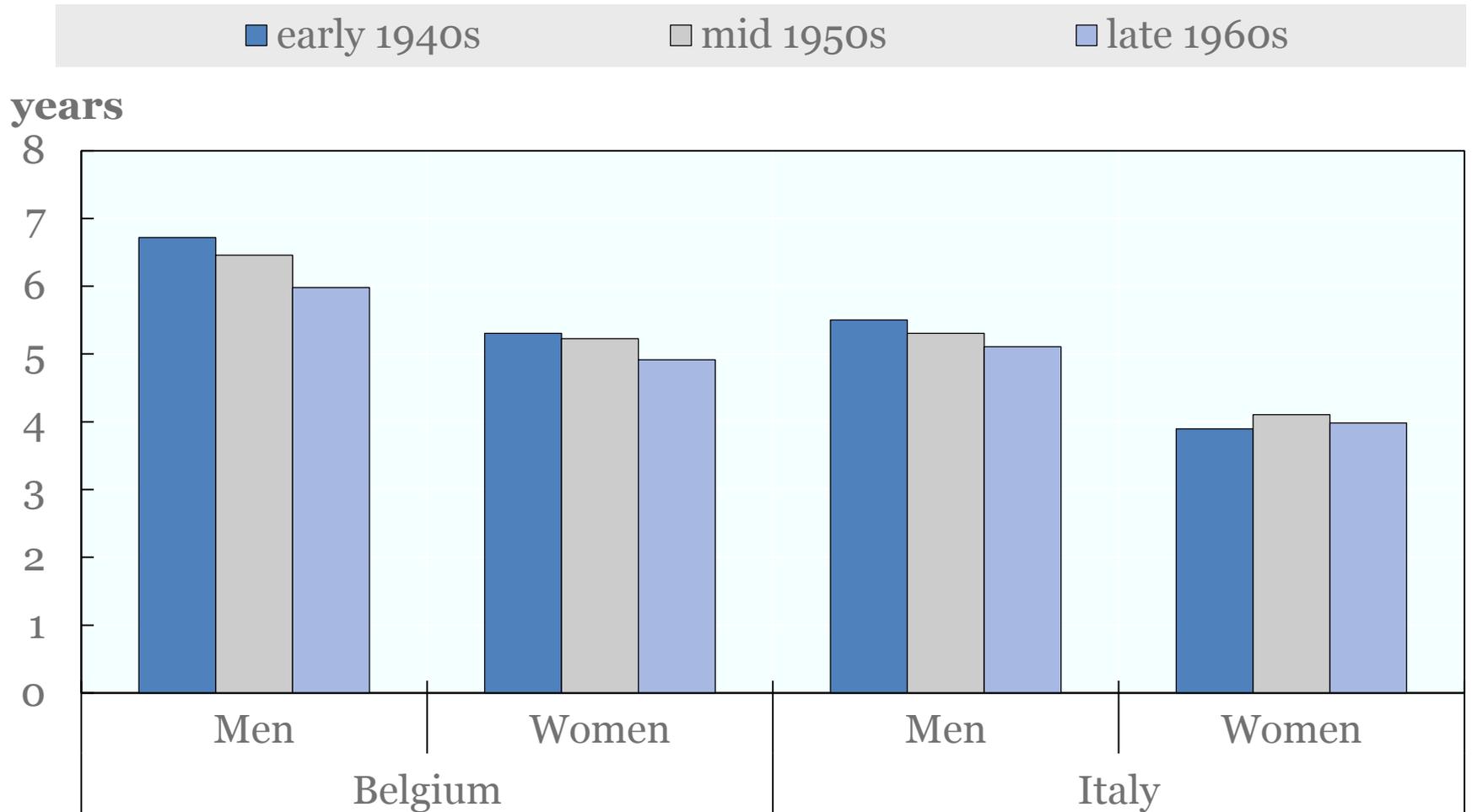
■ late 1960s

years





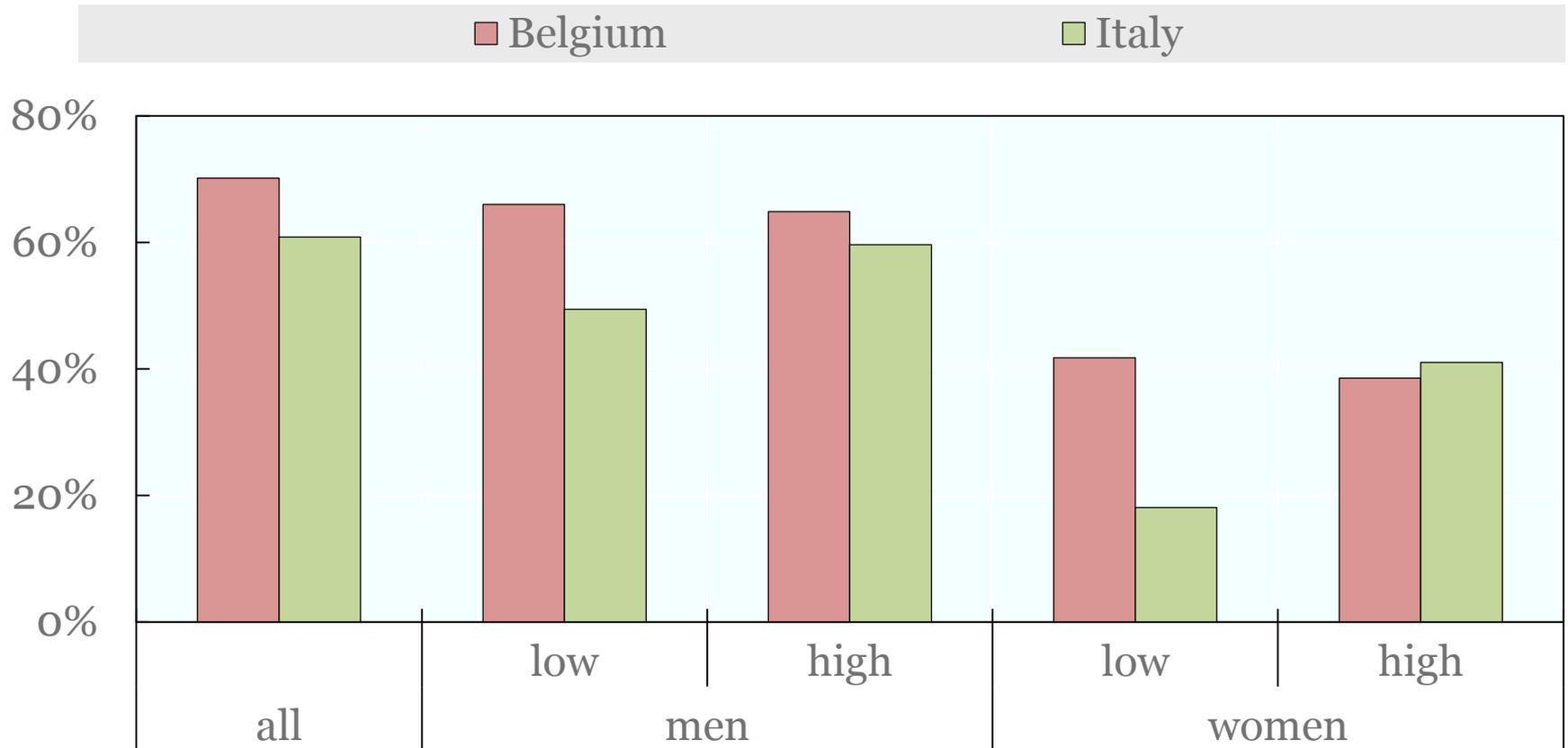
# Difference in life expectancy between high and low educated diminishes only slightly





# Majority of life-expectancy gains are disability-free..

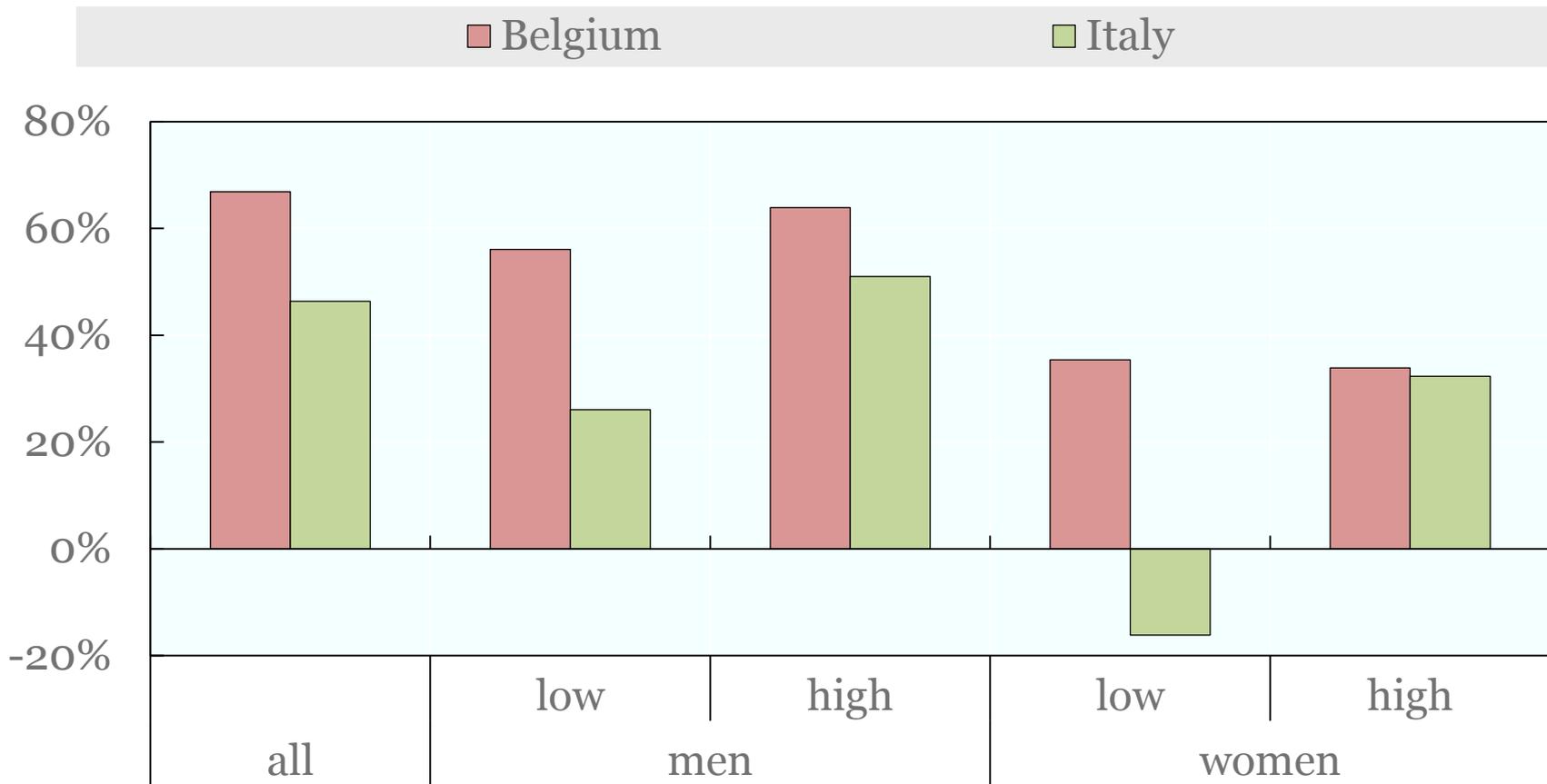
Gains in disability-free years after age 50 as a share of life expectancy gains between cohorts born in early 1940 and late 1960 by educational level





# .. but without 3+ chronic conditions only for men in Belgium..

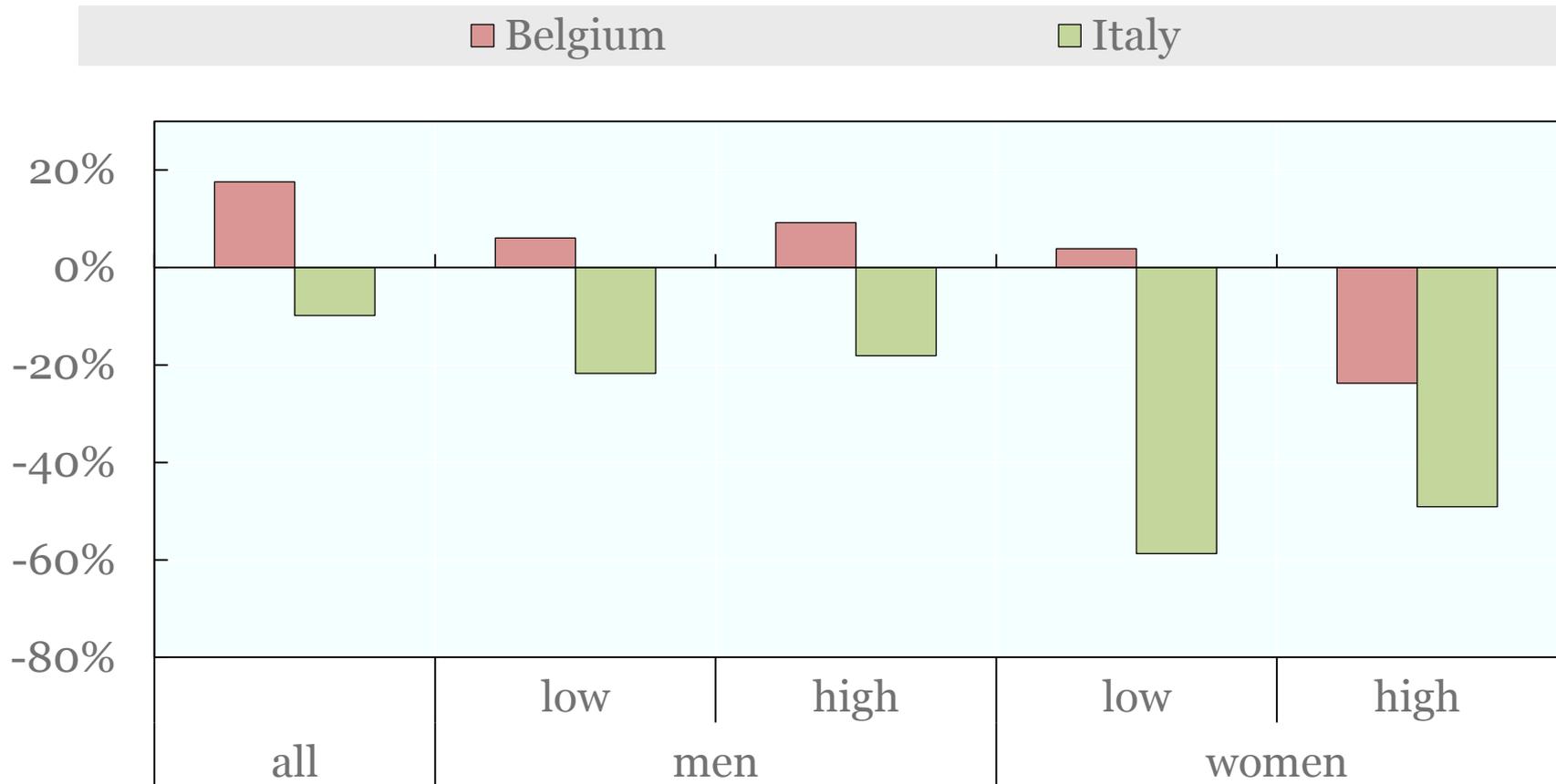
Gains in life without 3+ chronic conditions as a share of life expectancy gains after age 50 between cohorts born in early 1940s and late 1960s by educational level





# .. while duration of disease-free life decreases in Italy.

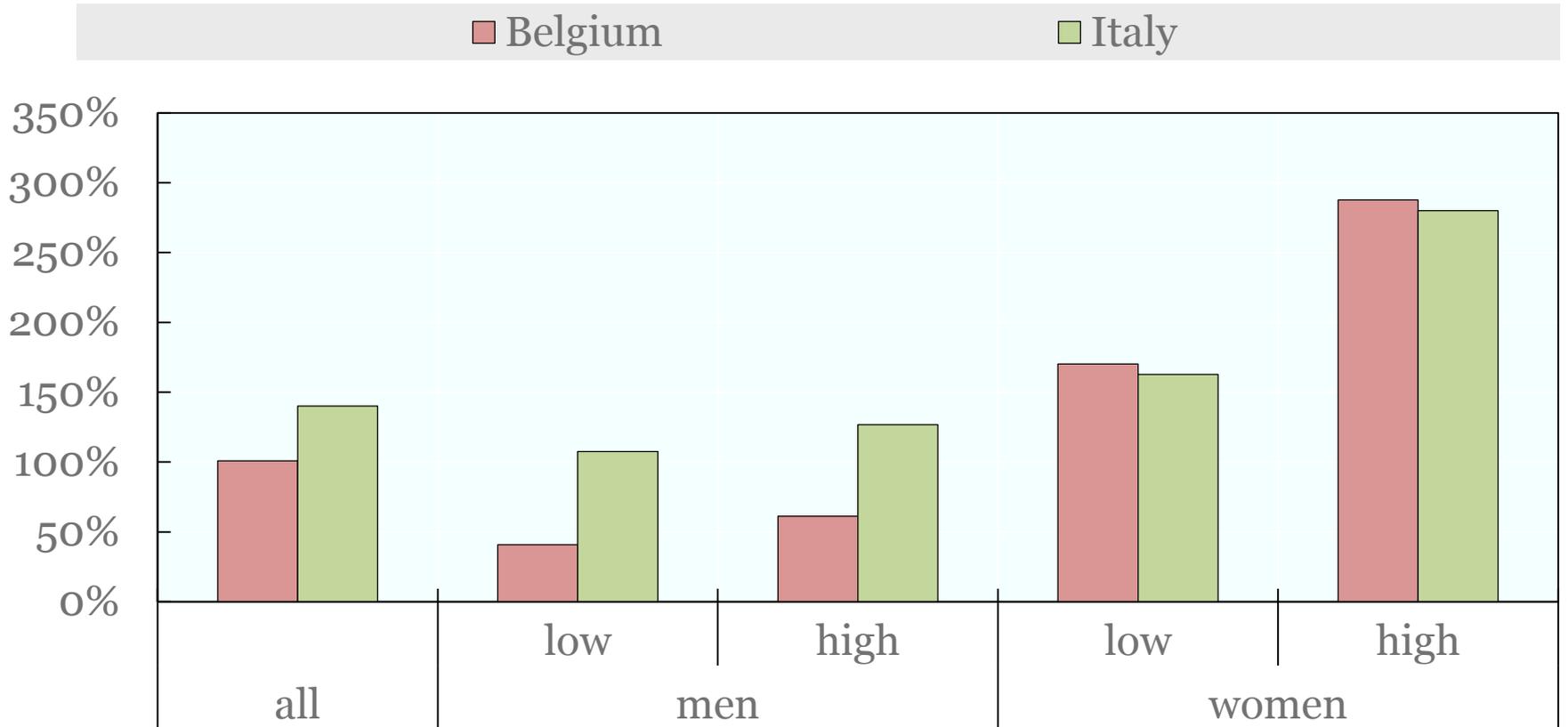
Gains in life without serious disease as a share of life expectancy gains after age 50 between cohorts born in early 1940s and late 1960s by educational level





# Working lives increase more than life expectancy among women

Gains in employment duration as a share of gains in life-expectancy at age 50 between cohorts born in early 1940s and late 1960s by education level



CAN PENSION, HEALTH AND  
ACTIVE LABOUR MARKET  
POLICIES HELP PROLONG  
WORKING LIVES AND  
REDUCE CUMULATIVE  
INEQUALITIES?



# Policy analysis

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- Compare the scenarios with policy innovation with the baseline (Business as Usual - BAU) for the cohort born in late 1960s and retiring in 2030s
- 3 Scenarios:
  - Raising retirement age
  - Implementing Diabetes Prevention Programme
  - Applying active labour market policies to the 50+



## Raising retirement age scenario

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What would be the impact of raising statutory retirement age to 70?

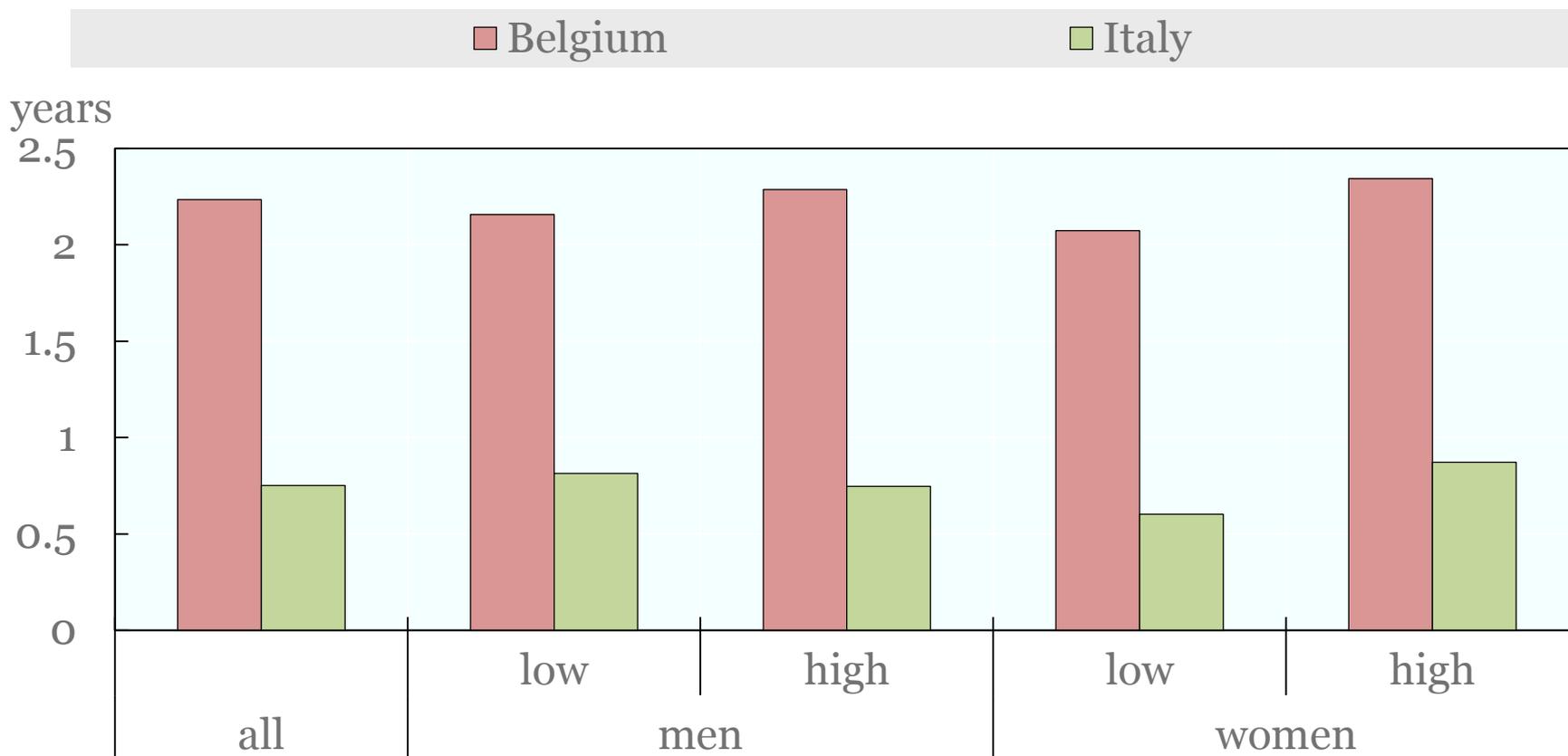
In the baseline, statutory retirement age is

- 67 in Belgium,
- 69 in Italy.



# Raising retirement age shows strong and roughly even impact across educational groups

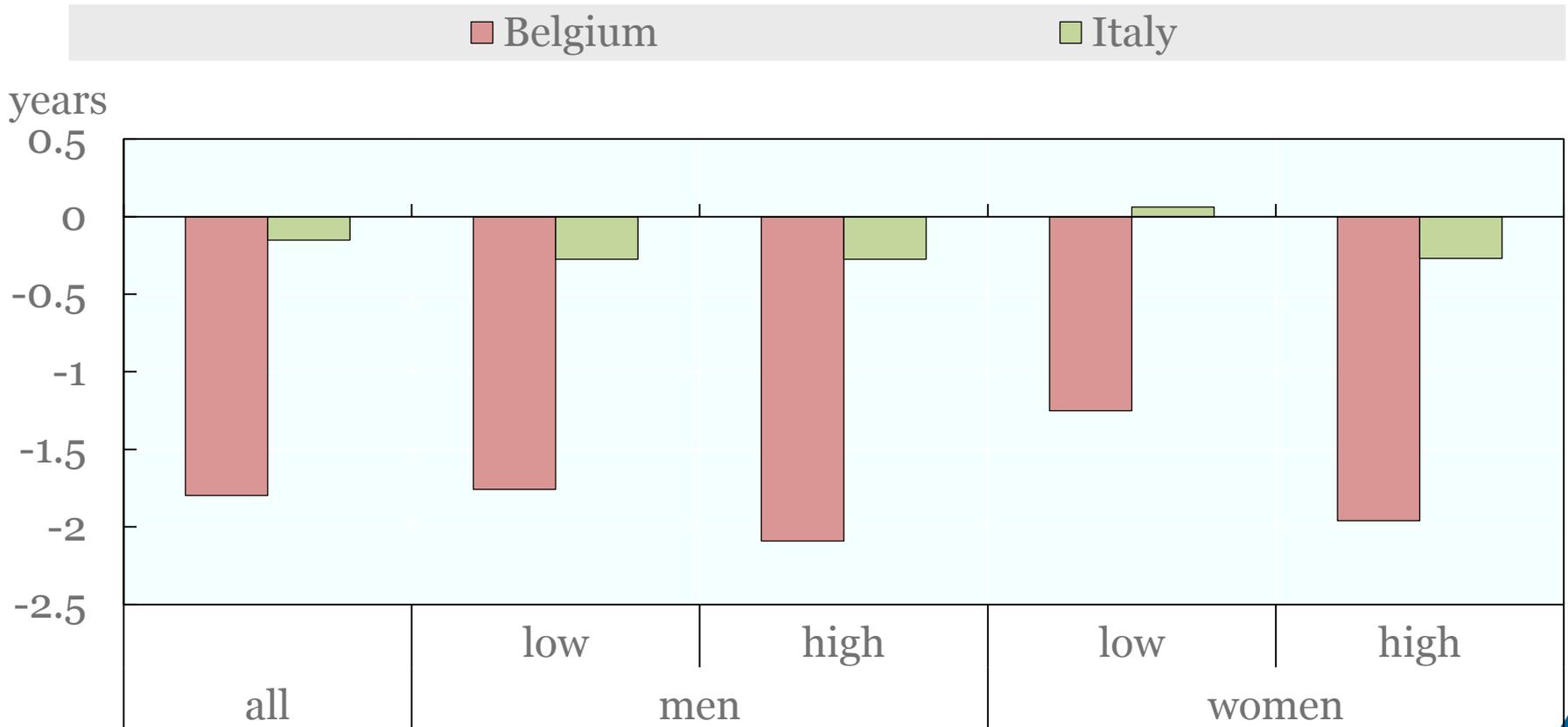
Difference in the average duration of working life after age 60 in the scenario with the raised retirement age and the baseline by education level





# Raising retirement age decreases the duration of claiming pensions

Difference in the average duration of claiming pension after age 60 in the raising retirement age scenario against the baseline





# Implementing Diabetes Prevention Programme

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Scenario definition:

Applying the Diabetes Prevention Programme (DPP)\* to the cohort born in late 1960s.

The DPP was a lifestyle intervention that proved to be successful in reducing obesity and diabetes.

\*Diabetes Prevention Programme Research Group (2002), Reduction in the incidence of type II with Lifestyle Intervention or Metformin, New England Journal of Medicine, vol. 364, no. 6.

Diabetes Prevention Programme Research Group (2015), Long-term effects of lifestyle intervention or metformin on diabetes development and microvascular complications over 15-year follow-up: the Diabetes Prevention Programme Outcomes Study, Lancet Diabetes Endocrinol.

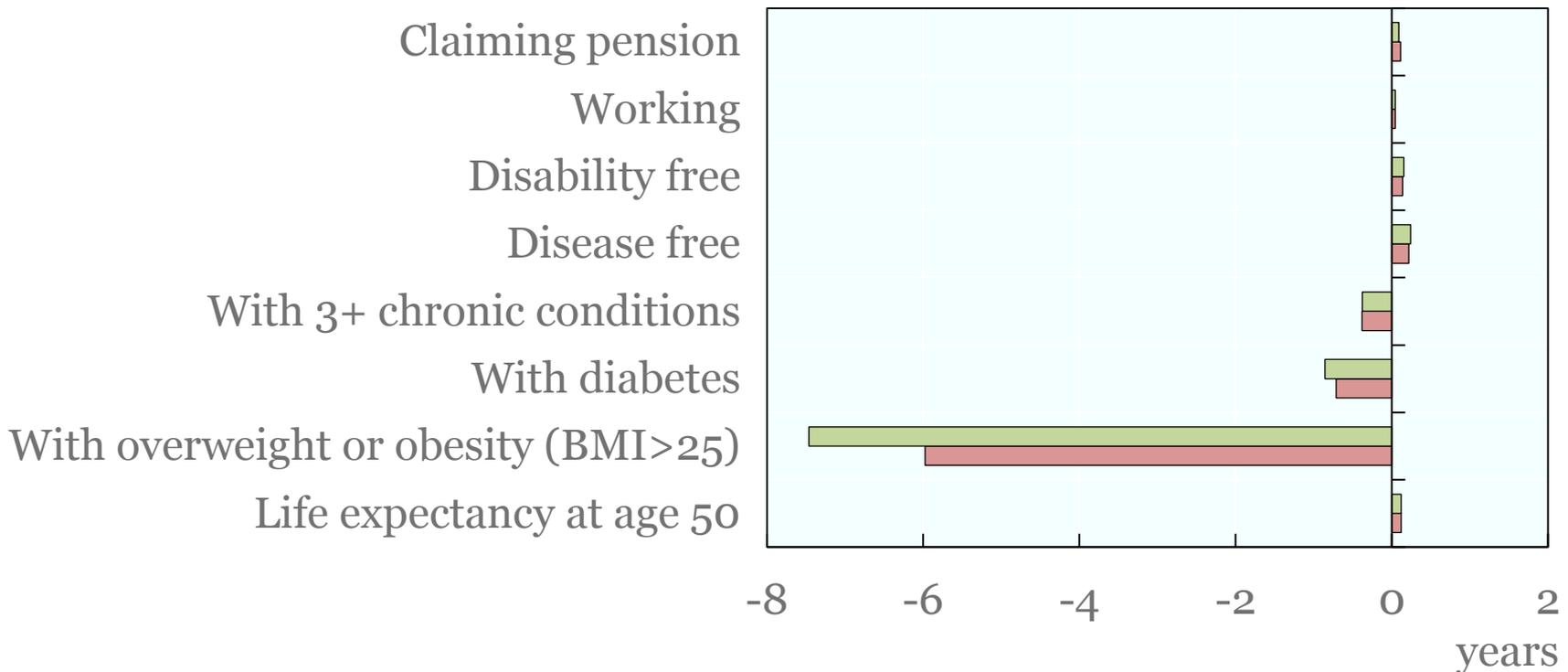


# DPP reduces obesity and diabetes but the impact on other measures is limited

Difference in the average duration of selected spells after age 50 in the DPP scenario against the baseline

■ Italy

■ Belgium





# Activation scenario

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## Scenario definition:

All those eligible at their 50s undergo an ALMP programme once.

As a result their employment probabilities increase, on average, by:\*

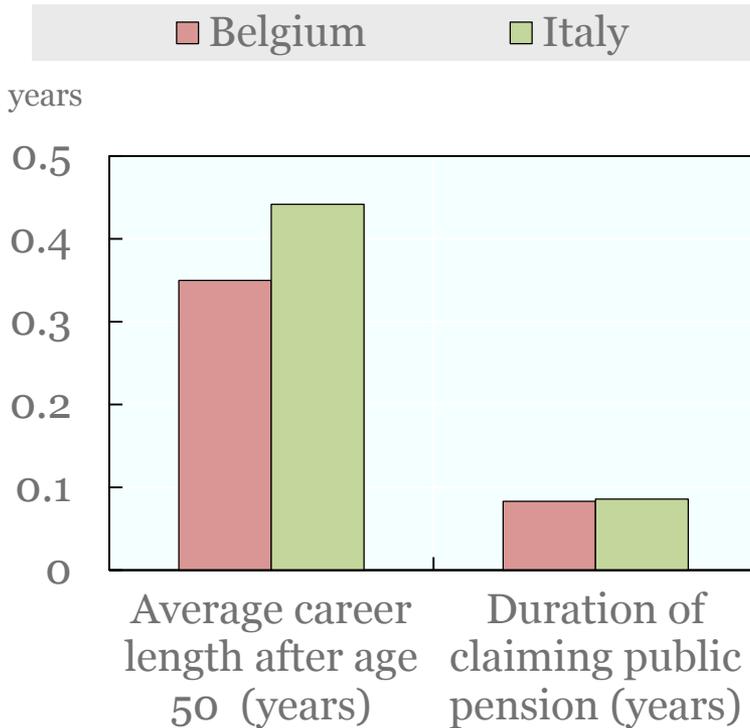
- 1.6 p.p. within a year,
- 5.4 p.p. over 2-3 years and
- 8.7 p.p. over the longer term (more than 3 years).

\* Card, D., Kluve, J., & Weber, A. (2017) What Works? A Meta Analysis of Recent Active Labour Market Program Evaluations. Journal of the European Economic Association.

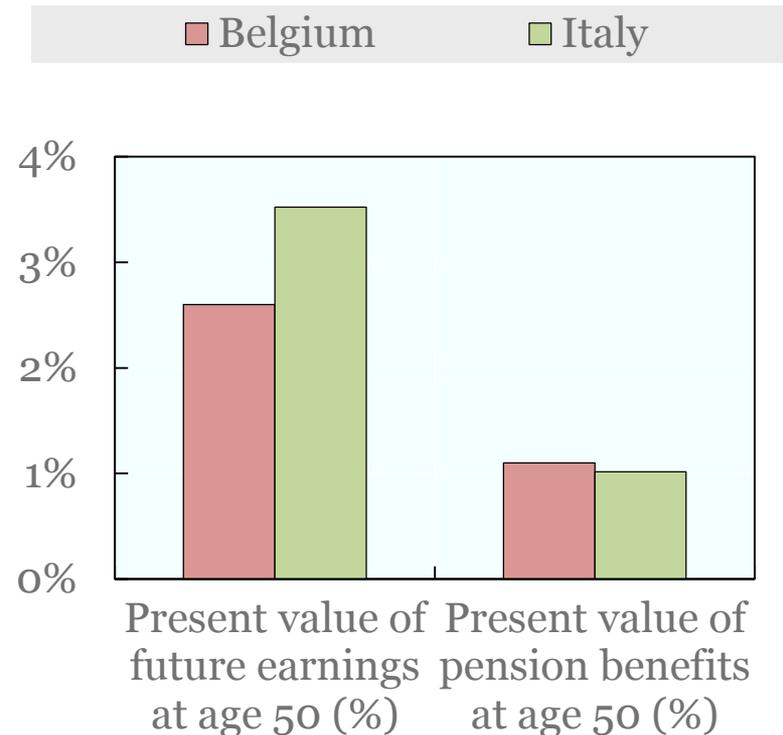


# Activation policies are efficient for selected groups but the aggregate effects are limited

The difference in average duration of claiming pension and career length in the ALMP scenario against the baseline



The relative difference in present value of earnings and pension benefits in the ALMP scenario against the baseline





## Key model results

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Across cohorts born in early 1940s and late 1960s in Belgium and Italy:

- gains in healthy life are substantial but smaller than gains in total life expectancy.
- duration of working life keeps pace or overtakes increases in life expectancy (given enacted changes in statutory retirement age).
- inequalities are persistent.

Policies that prolong working lives are not enough to reduce the existing inequalities.

Raising retirement age is crucial to prolong working lives.



*Thank you*

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OECD flagship pensions and ageing publications:

Preventing Ageing Unequally

<http://dx.doi.org/10.1787/9789264279087-en>

Pensions at a Glance

[http://dx.doi.org/10.1787/pension\\_glance-2017-en](http://dx.doi.org/10.1787/pension_glance-2017-en)

Pensions Outlook

[http://dx.doi.org/10.1787/pens\\_outlook-2016-en](http://dx.doi.org/10.1787/pens_outlook-2016-en)