

# **Sustainable pension reform on the basis of intergenerational equity: a proposal'**

Frank Vandembroucke

University of Amsterdam

Conference on Ageing and Distributive Justice

Barcelona 11-12 July

## Structure of the presentation

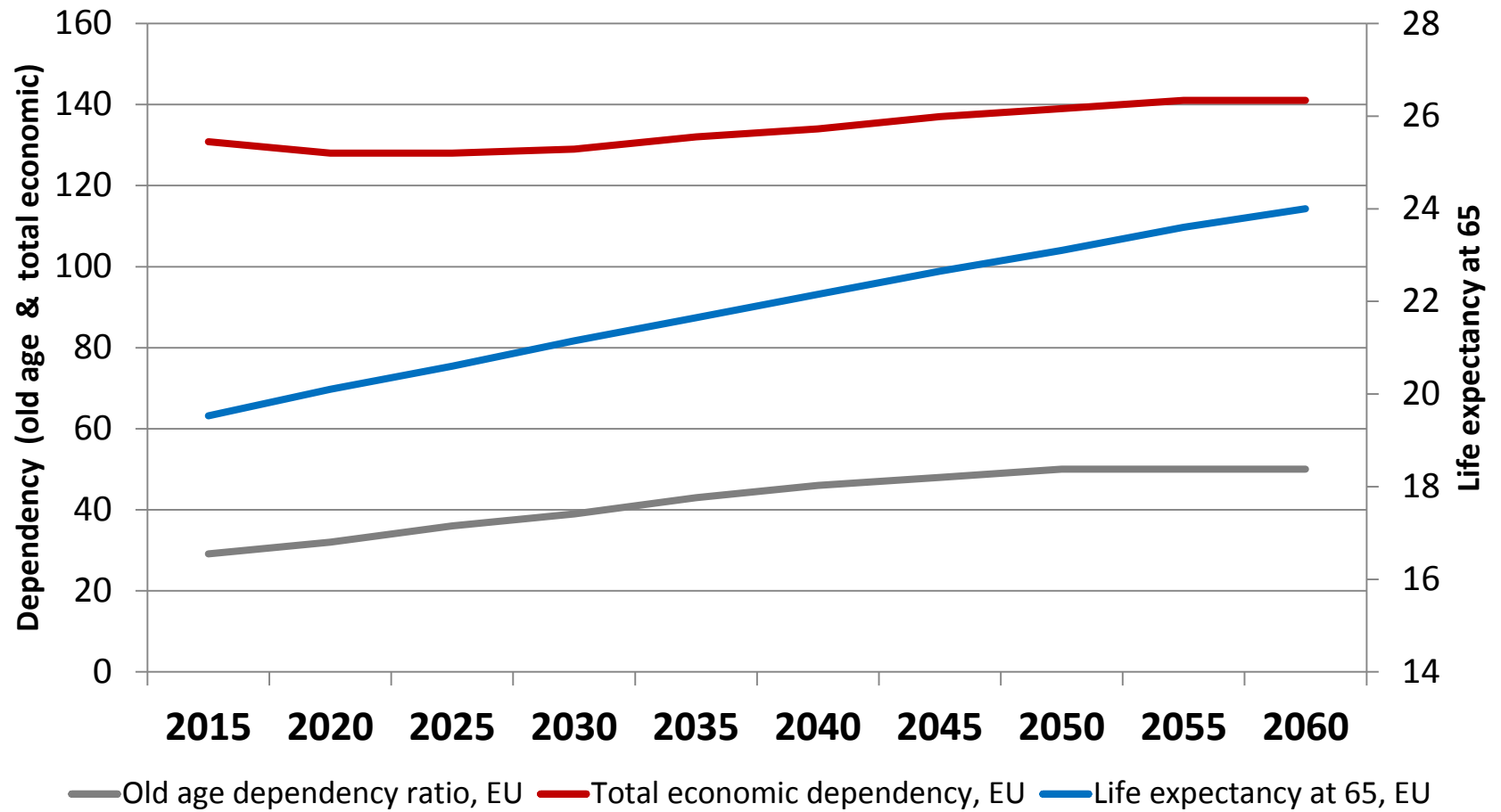
- The Belgian Commission on Pension Reform
- The Ageing Working Group Report 2015
- Intergenerational and intragenerational justice: the role of pensions (Schokkaert)
- Intergenerational risk sharing: a proposal

- Belgian Commission on Pension Reform 2020-2040
  - First report: June 2014
  - Additional report on flexibility, part-time pension, strenuous work
  - [www.pensioen2040.belgie.be](http://www.pensioen2040.belgie.be)
  - [www.pension2040.belgique.be](http://www.pension2040.belgique.be)
- New Federal Government (Ch. Michel): Sept. 2014
  - Statutory pension age: 67 by 2030
  - Reform w.r.t. specific advantages in civil servants' pension system
  - Creation of a 'National Pension Committee', 'Knowledge Centre' and 'Academic Council'

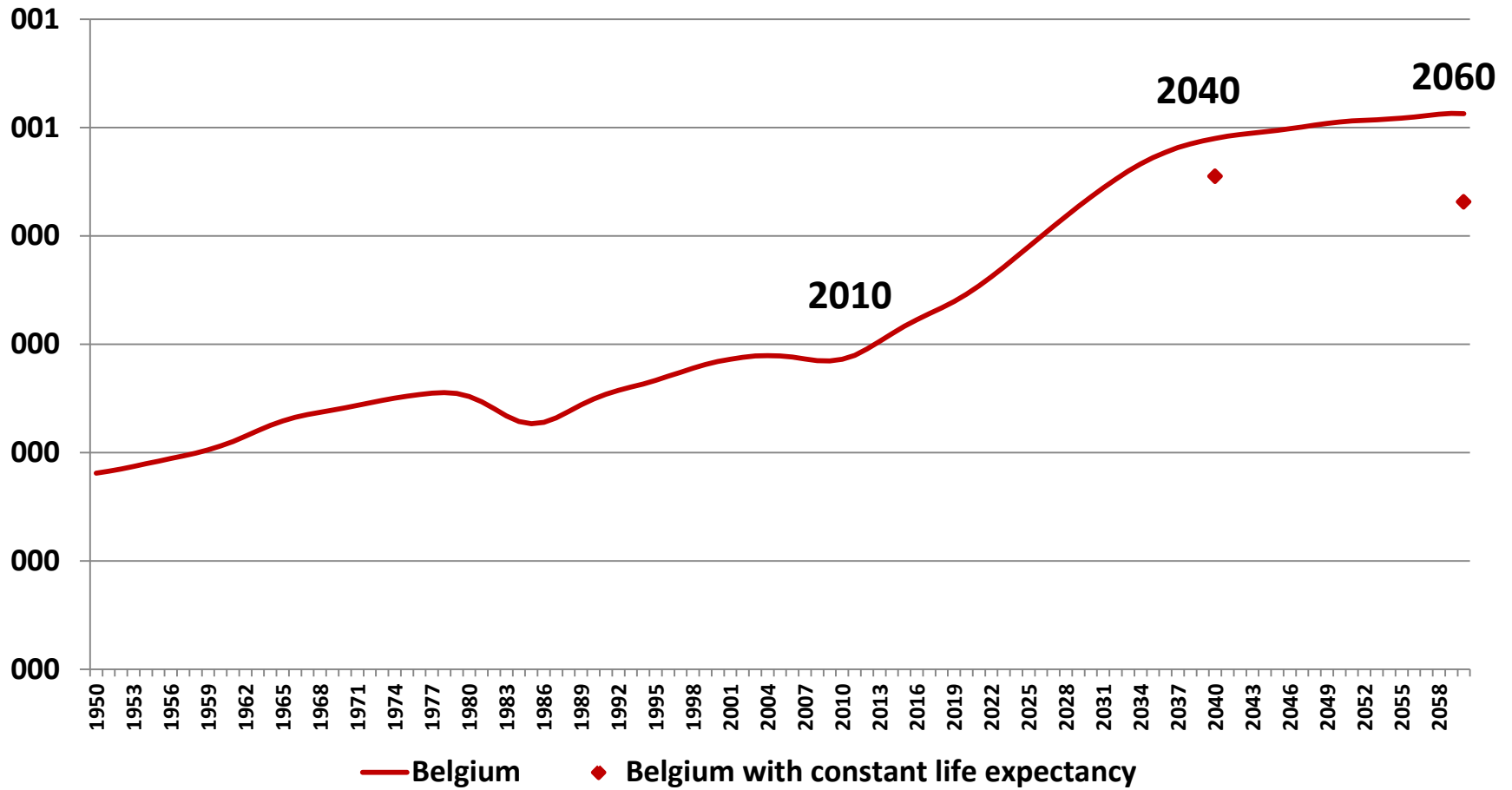
## Structure of the presentation

- The Belgian Commission on Pension Reform
- **The Ageing Working Group Report 2015**
- Intergenerational and intragenerational justice: the role of pensions
- Intergenerational risk sharing: a proposal

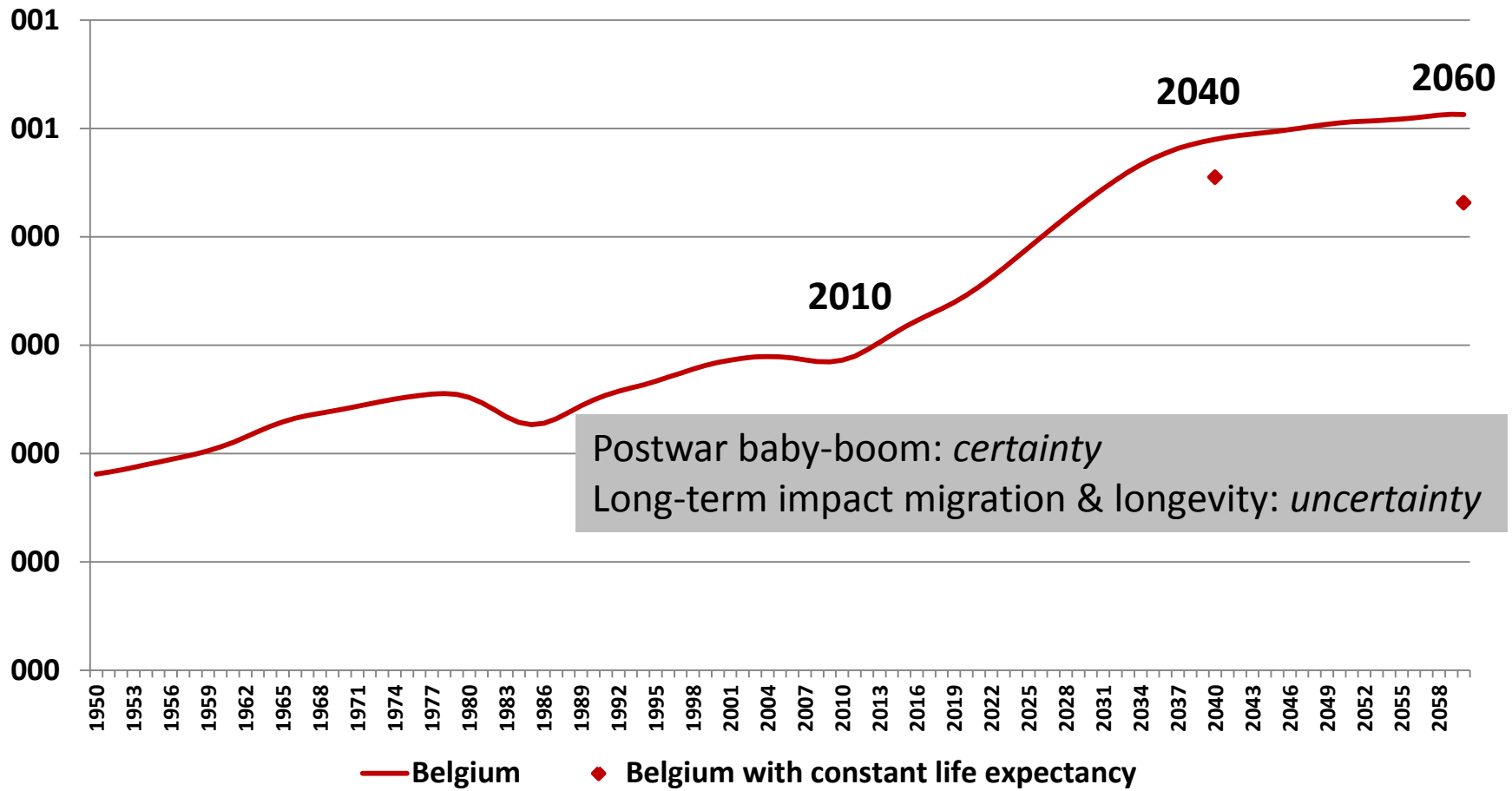
# Dependency and demographic change in the EU



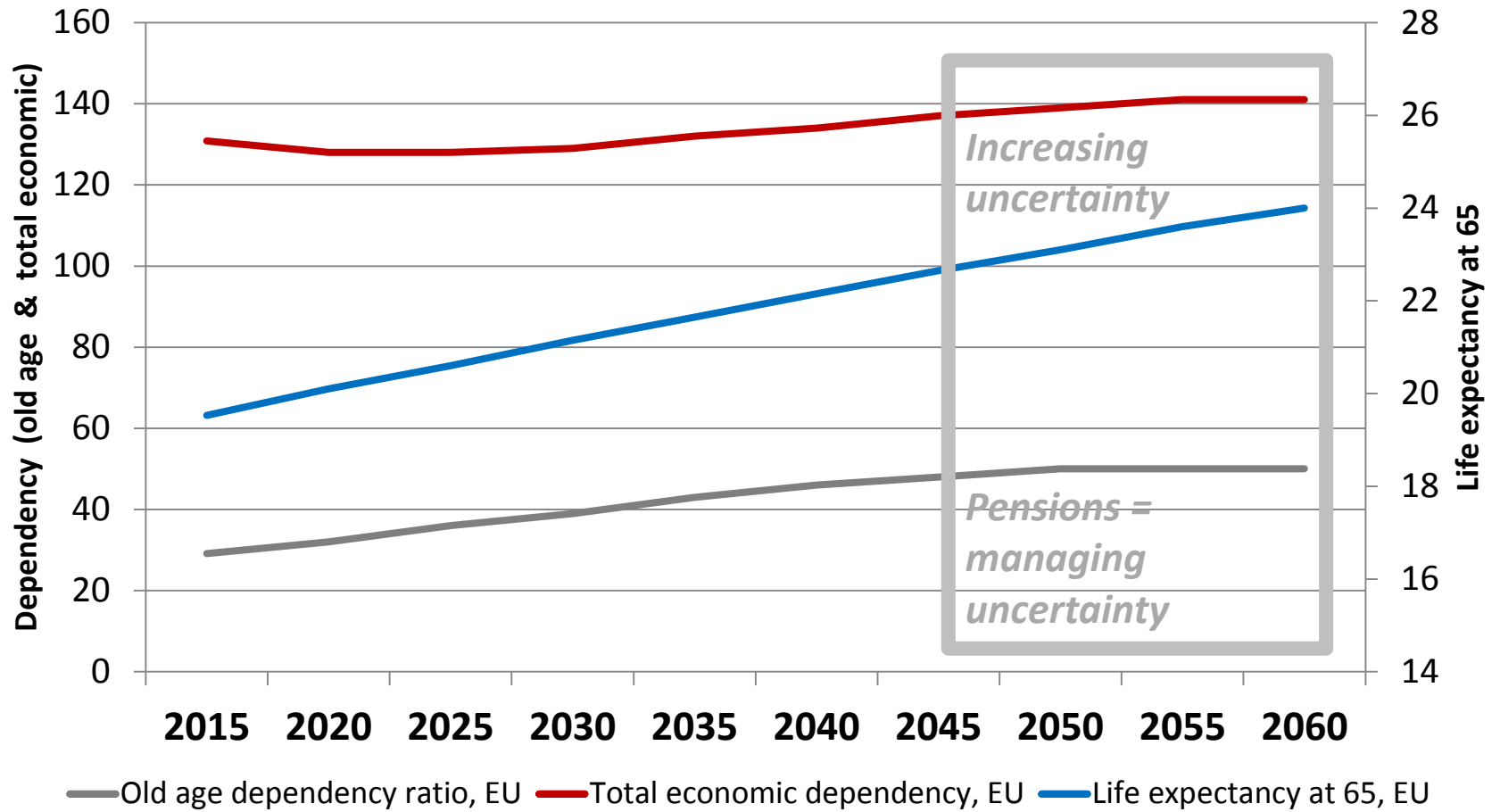
# Old age dependency ratio in Belgium [65+]/[20-64]



# Old age dependency ratio in Belgium [65+]/[20-64]

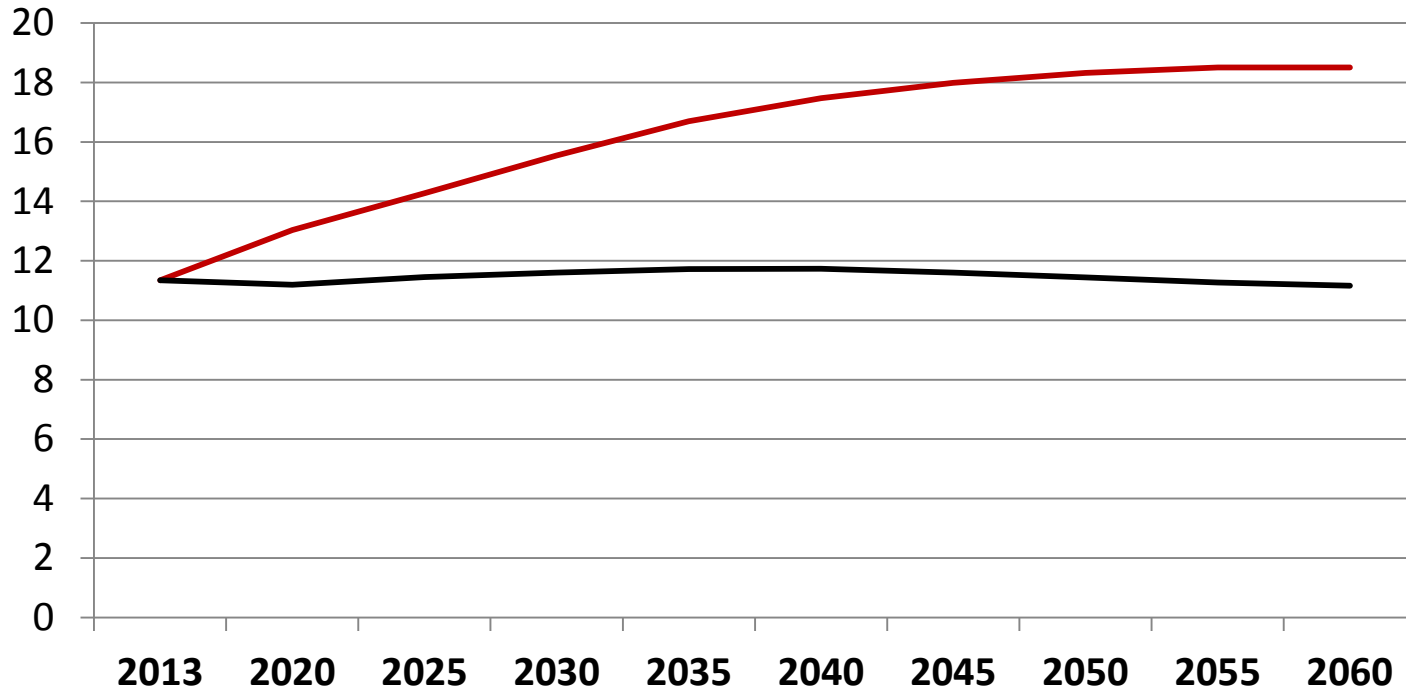


# Dependency and demographic change in the EU



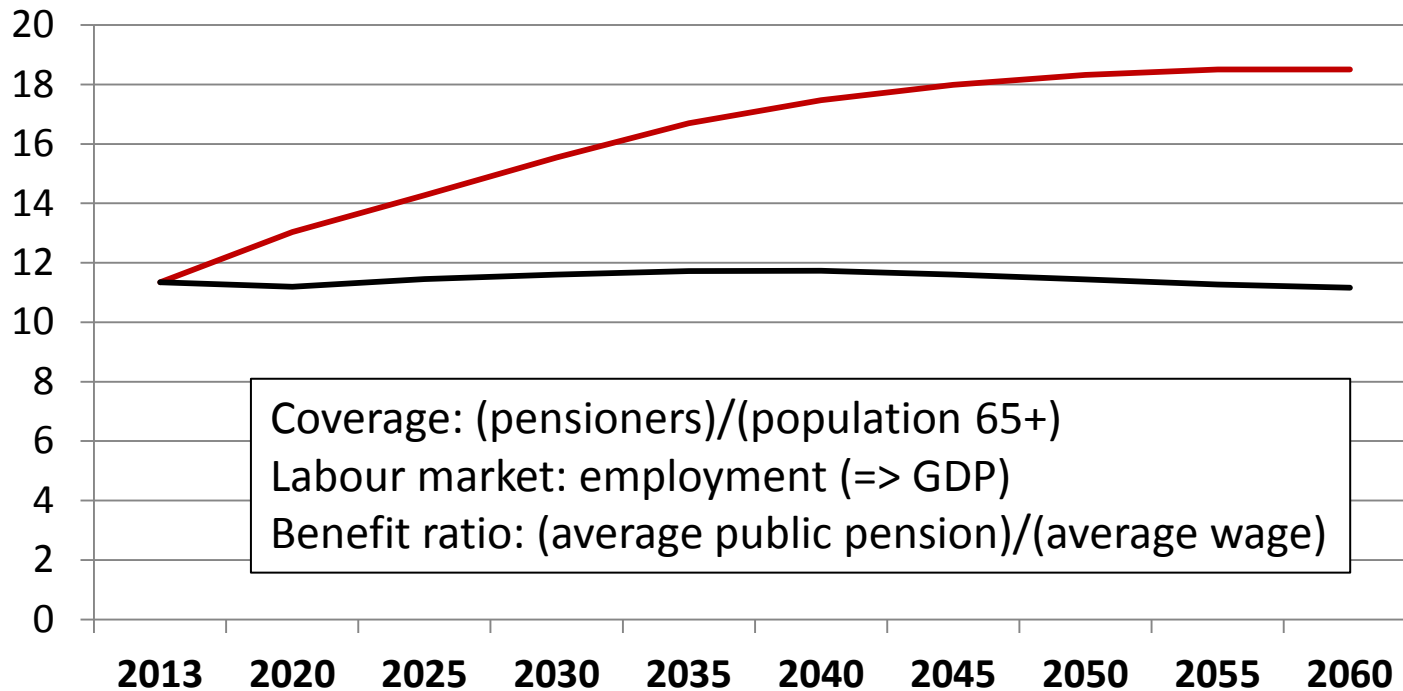


# Public pension spending, % GDP, EU



- Impact of dependency (no change in coverage, benefit ratio, labour market ratio)
- actual forecast (incl. interaction)

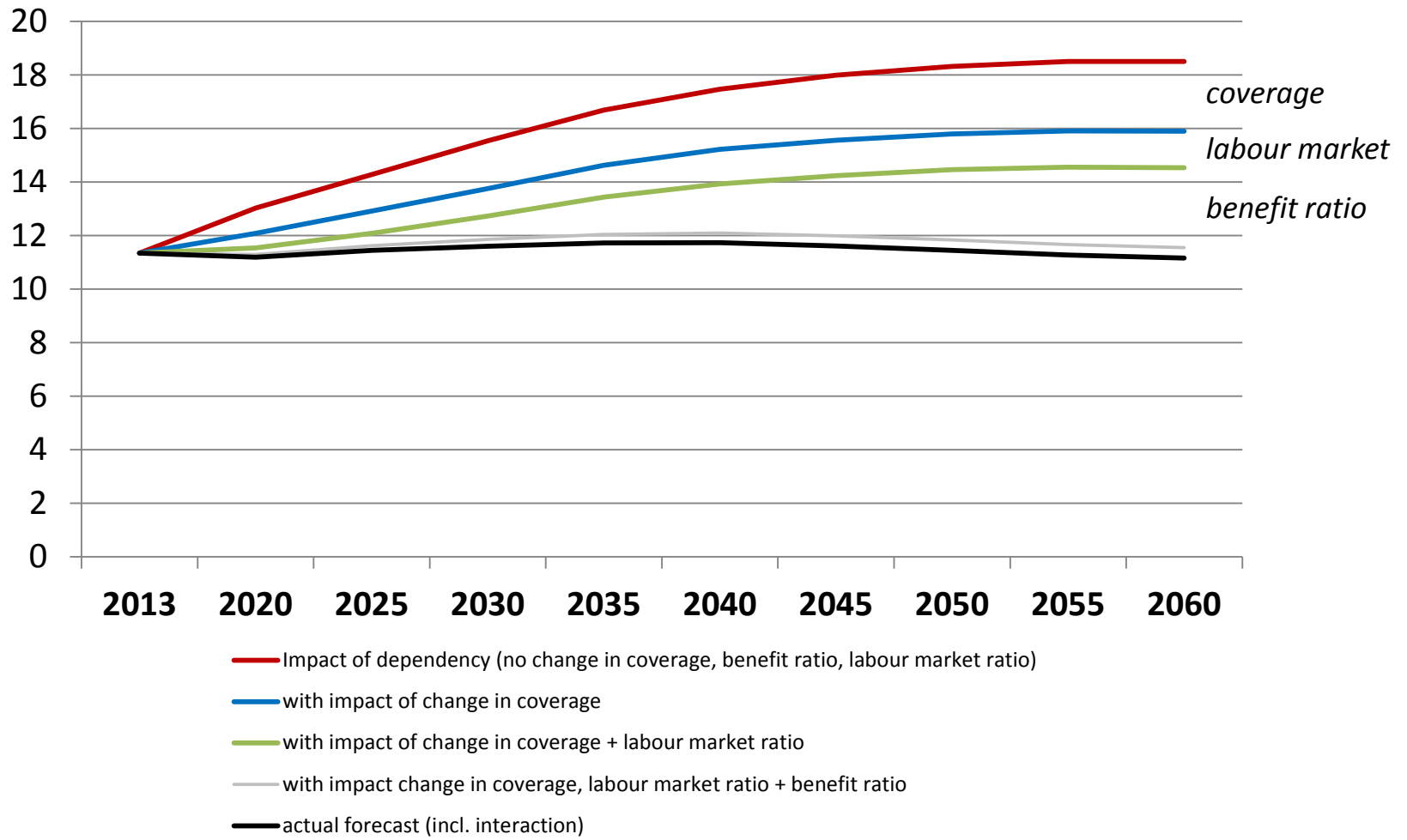
# Public pension spending, % GDP, EU



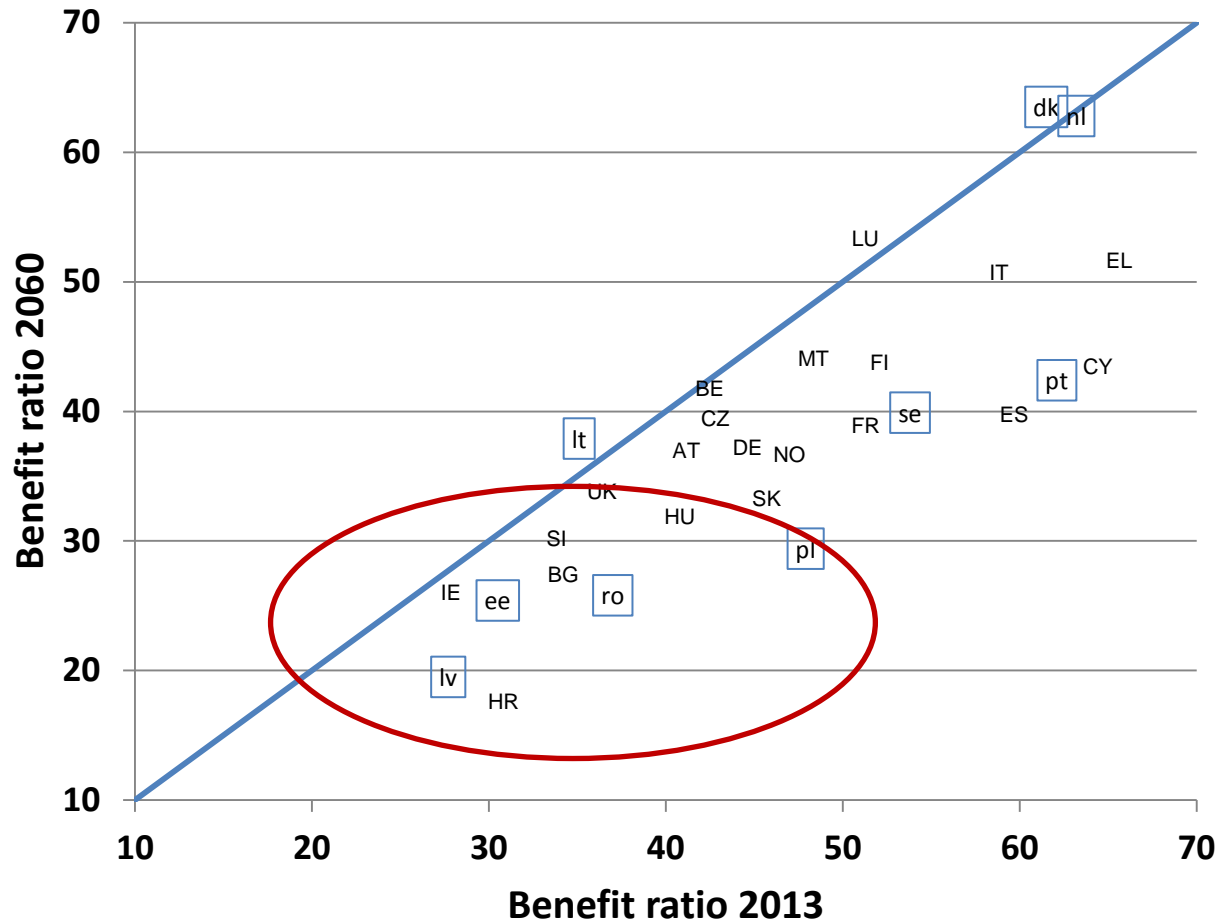
Coverage: (pensioners)/(population 65+)  
Labour market: employment ( $\Rightarrow$  GDP)  
Benefit ratio: (average public pension)/(average wage)

- Impact of dependency (no change in coverage, benefit ratio, labour market ratio)
- actual forecast (incl. interaction)

# Public pensions spending, % GDP, EU - decomposed



# Change in pension benefit ratios, incl. private pensions (□)



$$\text{Pension benefit ratio} = \frac{\text{average pension}}{\text{average wage}}$$

$$\text{Musgrave rule} = \frac{\text{average pension}}{\text{average net wage}}$$

## Structure of the presentation

- The Belgian Commission on Pension Reform
- The Ageing Working Group Report 2015
- **Intergenerational and intragenerational justice: the role of pensions (based on a presentation by E. Schokkaert)**
- Intergenerational risk sharing: a proposal

# Intergenerational and intragenerational justice: the role of pensions

Justice: individuals have to be compensated for differences rooted in their (*external AND internal*) endowments.

	equally endowed individuals	different individuals
equally endowed cohorts	no problem of justice	<u>in</u> tragenerational justice
different cohorts	<u>in</u> tergenerational justice	overall justice

Source: presentation by Erik Schokkaert in seminar 'Justice between groups', UCL

# Intergenerational and intragenerational justice: the role of pensions

	equally endowed individuals	different individuals
equally endowed cohorts	no problem of justice	<u>in</u> tragenerational justice
different cohorts	<u>in</u> tergenerational justice	overall justice

## **Non overlapping, equally endowed cohorts of equally endowed individuals**

- No problem of justice: individuals are free (and remain responsible) to allocate their (equal) endowments over their life-cycle.
- Private pension schemes: funded and defined contribution.
- Minimum pension provided by government: mild paternalism and free rider argument.



## Overlapping, (ex ante) equally endowed cohorts of equally endowed individuals

- Pay-as-you-go system: possibility of risk sharing between cohorts
- Mixed system (partial funding) preferable
- Insurance is (ex ante) efficient, but may ex post look like redistribution

# Intergenerational and intragenerational justice: the role of pensions

	equally endowed individuals	different individuals
equally endowed cohorts	no problem of justice	<u>in</u> trage <u>nerational</u> justice
different cohorts	<u>inter</u> generational justice	overall justice

## Identical cohorts with different individuals

- a) Maximin the “life-cycle endowment”: relevance of a minimum pension
  
- b) Should the public pension be restricted to providing a minimum? Arguments in favour of Bismarckian (“earnings-related”) features:
  - Intergenerational risk-sharing
  - Minimize distortions on the labour market
  - Political support for minimum pension

## Identical cohorts with different individuals

c) Importance of non-contributory rights (periods of care, involuntary unemployment).

d) Justice and differences in life expectancy:

uniform annuities impose ex ante-solidarity on groups with lower life expectancy:

- redistribution from lower-income men to higher-income women
- genetic differences

e) Justice with respect to differences in working conditions

# Intergenerational and intragenerational justice: the role of pensions

	equally endowed individuals	different individuals
equally endowed cohorts	no problem of justice	<u>in</u> tragenerational justice
different cohorts	<u>in</u> tergenerational justice	overall justice

# Intergenerational and intragenerational justice: the role of pensions

Maximise the endowment of the least well-off cohort, so that this cohort can maximise the endowment of its least well-off members:

- risk sharing through mix pay-as-you/funding.
- **Musgrave criterion** as the reference point for intergenerational redistribution.
- priority to minimum pension; negative shock will lead to some compression of the pension structure.
- earnings-related public pensions.
- "just" age of retirement, taking into account life expectancy and working conditions.

## Structure of the presentation

- The Belgian Commission on Pension Reform
- The Ageing Working Group Report 2015
- Intergenerational and intragenerational justice: the role of pensions (Schokkaert)
- **Intergenerational risk sharing: a proposal**

# Intergenerational risk sharing

- Pensions = managing uncertainty
  - by integrating adjustment mechanisms in the pension system
  - EU Commission: by indexing parameters of pension systems to longevity (e.g. career requirements & retirement age)
- Options for risk sharing

	Defined benefit	Defined contribution	Musgrave rule
Fix...	Pension	Contribution rate	(net) pension benefit ratio
Economic risk	Risk for workers	Shared risk	Shared risk
Demographic risk	Risk for workers	Risk for retirees	Shared risk



# Intergenerational risk-sharing

- Pensions = managing uncertainty
  - by integrating adjustment mechanisms in the pension system
  - EU Commission: by indexing parameters of pension systems to longevity (e.g. career requirements & retirement age)
- ‘Conditional certainty’ for the individual citizen
  - Stabilize  $\frac{\textit{average net pension income}}{\textit{average net income active population}}$  (Musgrave Rule)
  - Conditional on collective behaviour, given macro demographic & economic context
  - Conditional on individual choice

## Pay-as-you-go allows 'defined ambition', with point system

- Pension = (**number** of points) x (**value** of point)  
x (actuarial **corrections**)  
x (**indexation** to income growth)

## Pay-as-you-go allows 'defined ambition', with point system

- Pension = (**number** of points) x (**value** of point)  
x (actuarial **corrections**)  
x (**indexation** to income growth)
- **Number** of points  $\leq$  career: *intragenerational* justice





## Pay-as-you-go allows 'defined ambition', with point system

- Pension = (**number** of points) x (**value** of point)  
x (actuarial **corrections**)  
x (**indexation** to income growth)

- **Number** of points  $\leq$  career: *intragenerational* justice

- **Value** of point  $\approx$  **f** (average income employed)

Premised on a desirable and sustainable replacement rate for a 'standard worker' with a 'normal career';

'normal career' takes into account changes in demography etc.

- Positive / negative **corrections**  $\approx$  **f** (career)

- **Indexation**  $\approx$  **f** (growth real incomes), with sustainability coefficient

## **‘Defined ambition’ : in between DC and DB**

Two objectives in the 2014 Commission Report:

- Target replacement rate for ‘standard worker’ with ‘normal career’  
  
& stabilisation of income ratio pensioners/employed
- Stabilisation of the contribution rates on earned income

## **‘Defined ambition’ : in between DC and DB**

Two objectives in the 2014 Commission Report:

- Target replacement rate for ‘standard worker’ with ‘normal career’  
  
& stabilisation of average income ratios pensioners/employed
  - Stabilisation of the contribution rates on earned income
- ⇒ Postponing retirement
- ⇒ ‘Alternative’ funding (tax shift)



## **Differentiation according to the nature of the shocks**

(paper Schokkaert, Devolder, Hindriks, Vandenbroucke)

- Changes in longevity:
  - the Musgrave ratio is conditional on behaviour of the new retirees
  - pensions of actual retirees should not be affected
- Other changes (baby-boom, structural employment rate...)
  - stabilisation of the Musgrave ratio => contribution rate and (gross) benefit ratio change
  - Pensions of actual retirees are affected (sustainability coefficient)

## Implementing risk sharing *à la* 'Musgrave rule' implies further normative questions

- Pension benefit ratio (*relative* level of pensions/wages):  
what is the optimal allocation of consumption over the life cycle?
- *Absolute* level of wages & pensions (given labour productivity):  
what is the optimal choice of leisure over a whole life?

## Resources

- Schokkaert, Devolder, Hindriks, Vandenbroucke, *Towards an equitable and sustainable points system. A proposal for pension reform in Belgium*, Discussion Paper, 2017
- European Commission, *The 2015 Ageing Report*, European Economy 3/2015
- Musgrave rule: Myles, 'A New Contract for the Elderly', in Esping-Andersen, *Why we need a New Welfare State*, OUP, 2002.
- Belgian Commission on Pension Reform 2020-2040
  - [www.pensioen2040.belgie.be](http://www.pensioen2040.belgie.be)
  - [www.pension2040.belgique.be](http://www.pension2040.belgique.be)