

The impact of demographic development on the sustainability of pension system and replacement rates in Latvia

Edgars Vītols
University of Latvia



The aim of the research

To analyse the impact of demographic development on the sustainability of the pension system and replacement rates in Latvia

Tasks:

- ▶ To develop pension system projections for the period 2038-2060;
- ▶ To assess the sustainability of the of the pension system based on long-term demographic projections;
- ▶ To determine the theoretical replacement rates (TRR);
- ▶ To simulate impact of demographic projections on the TRR;
- ▶ To analyse whether it is possible to increase the theoretical replacement rates without endangering the sustainability of public finances.



The current pension system in Latvia

- ▶ The Notional defined-contribution (NDC) pension scheme was created in 1996;
- ▶ The State mandatory funded defined contribution pension scheme was implemented in 2001;
- ▶ Old age pension is calculated:

$P=K/G$, where

P – pension;

K – pension capital (**annually updated using index of insurance contribution wage**);

G – life expectancy at retirement.

- ▶ Annual pension indexation using CPI and wage growth.

An adequacy and sustainability trade-off

- ▶ The **sustainability of the pension system** is defined by the ability to cover its liabilities or promised payments without threatening its solvency;
- ▶ In the research pension system is considered to be sustainable if pension expenditure is fully covered by the social contributions.

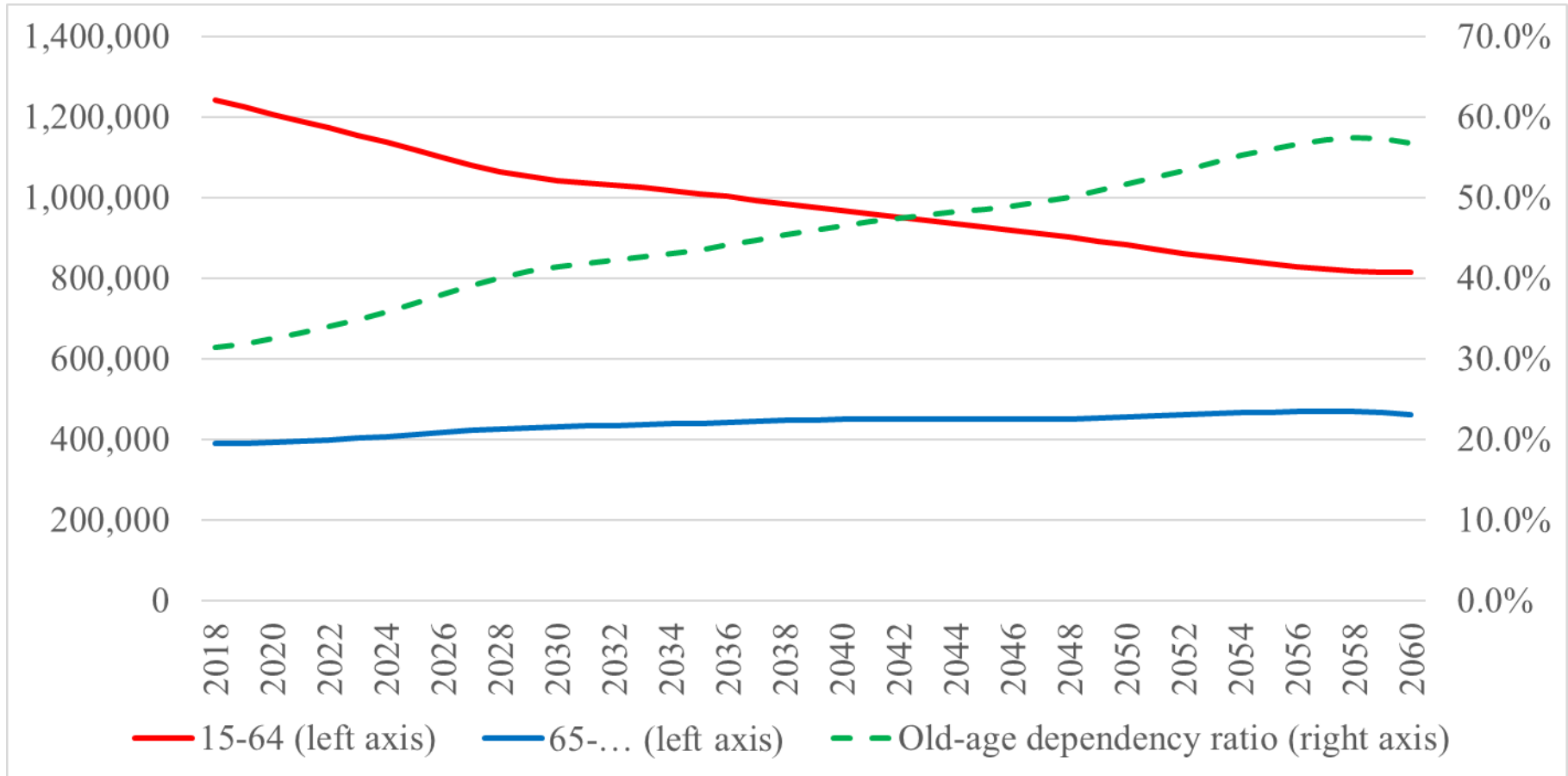
TRR measure how a retiree`s pension income compares to a pre-retirement income.

Adequacy of the pension system is defined by ability of pension system to provide income that is above at-risk-of-poverty level during retirement.

Assumptions

Variables	Source
Demographic projections	Eurostat
Employment	Ageing report 2018
Expected contributory period	Ageing report 2018
Life expectancy at retirement	Ageing report 2018
Wage growth rate	Ageing report 2018
Market rate of return for 2nd pillar	Average weighted market rate of return during 2001-2019
Homogeneity of population	

Demographic projections

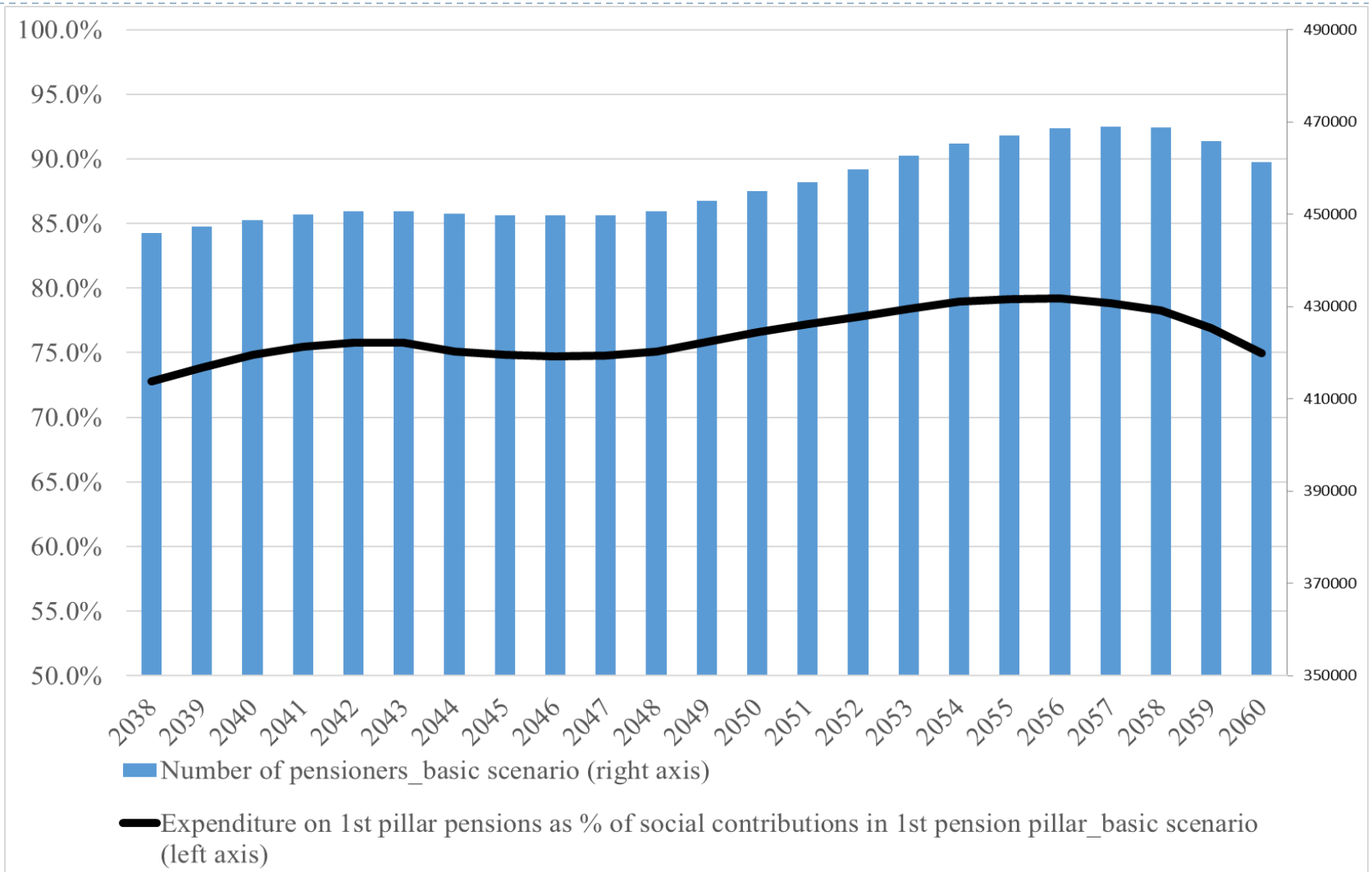


Source: Eurostat



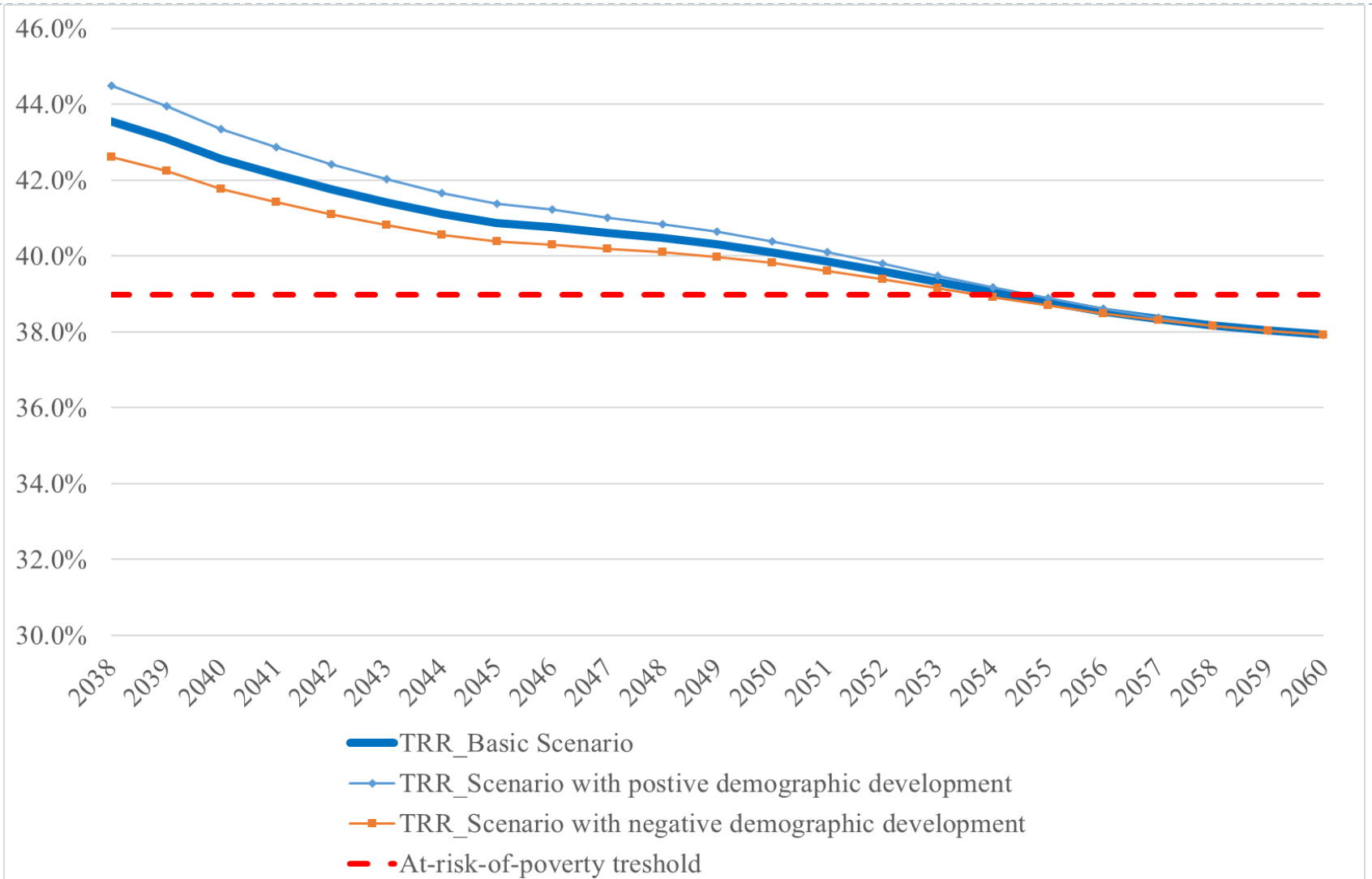
Results

A sustainability of pension system



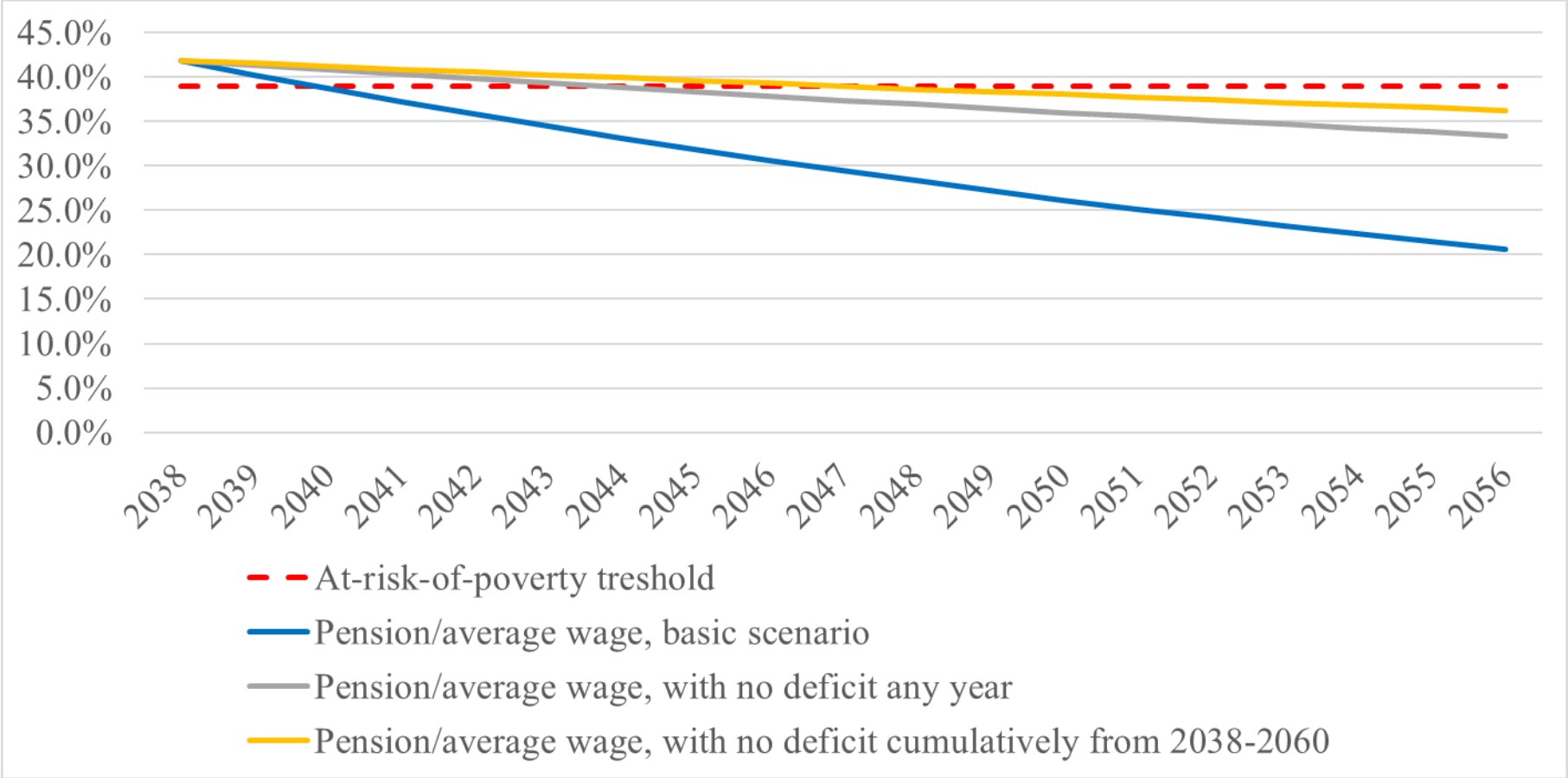
Results

The theoretical replacement ratio



Results

Adequacy of pension system



Conclusions

- ▶ Pension system is considered to be sustainable, however pension income is not adequate. Ratio of pension income to wage falls below at-rate-of-poverty level in two years without annual government indexation;
- ▶ TRR depends of number of employed people – decrease in TRR is mainly explained by negative demographic trends;
- ▶ To maintain initial adequacy rate for whole retirement it is necessary to increase revenues by 7.6% during 2038-2060.

Thank you for your attention

Edgars Vitols
Edgars.vitols89@inbox.lv

