

ACCRUED PENSION RIGHTS IN BELGIUM: MICRO-SIMULATION OF REFORMS

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Outline

- Introduction
- Data
- Results
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Introduction

- Micro-simulation of pension reforms
 - Major advantages:
 - Reflects the richness of differences among people
 - Allows a better evaluation of individual responses
 - Gives a good estimate of aggregate outcome
 - Major disadvantages:
 - Requires large amounts of data, particularly in the face of a complicated/multi-parameter retirement system
 - Survey datasets usually do not have sufficient information even for basic modeling

Introduction

- Our approach: Use the Mimosis data from 2001 as a background for our analysis
 - Very strong data for contractual wage earners
 - Less complete for self-employed and civil servants
- Simulate a series of stylized reforms
 - Can be adapted to other settings
 - Give a good sense of direction on scope of effect on individuals as well as on budget savings
 - Evaluate the distributional consequences

Reforms

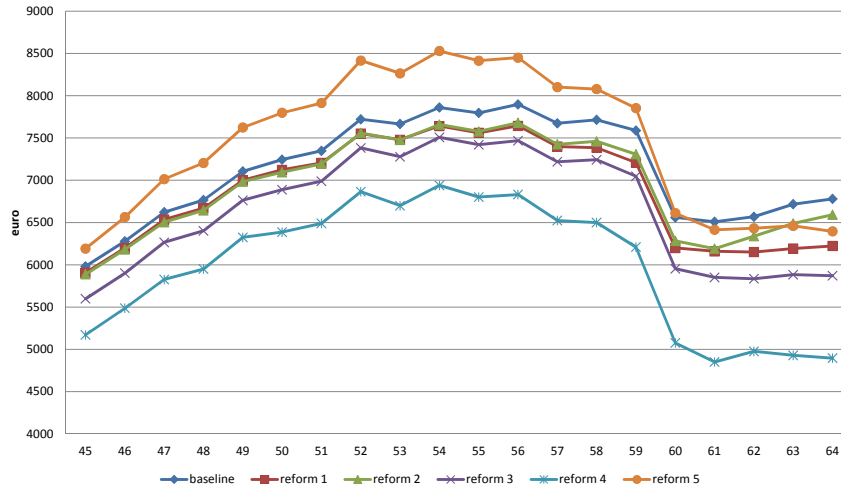
Reform 1	Change in replacement rates
Reform 2	Elimination of minimum earnings by year and of minimum pension
Reform 3	Periods of inactivity valued at 0 wage (assimilated days)
Reform 4	Reforms 2 and 3 together
Reform 5	Elimination of minimum earnings by year. Assimilated days not taken into account. Pension benefits computed on the best 35 years of career. Full career: 35 years.

Gender and labor market situation	Age					Total
	18-24	25-34	35-44	45-54	55-64	
Gender						
Men	53.2	50.4	50.5	50.8	51.5	51.0
Women	46.8	49.6	49.5	49.2	48.5	49.0
Labor market situation						
Wage earners	84.7	65.9	55.5	41.1	16.9	50.7
Self-employed	4.2	10.1	12.8	11.3	11.6	11.0
Civil servants	1.8	5.6	11.5	15.5	9.4	9.9
Sick / Disabled	1.2	1.0	1.9	4.2	6.0	2.9
Unemployed / Pre-retired	8.1	6.4	5.1	8.6	24.4	9.5
Other	0.0	11.3	13.2	19.1	31.5	16.0
Population(x1000)	273.1	787.8	940.3	816.3	533.2	3,350.8
% of total population	8.2	23.5	28.1	24.4	15.9	100.0

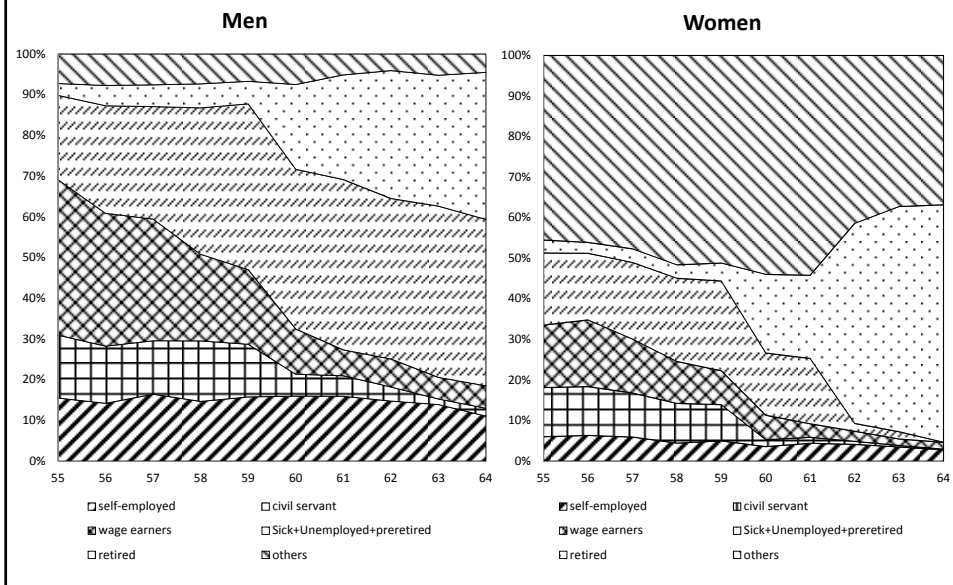
Sample characteristics: Flanders 1/1/2002
excluding dependent children and retired

Results: averages

Average ATP pension rights (45-64 years old)



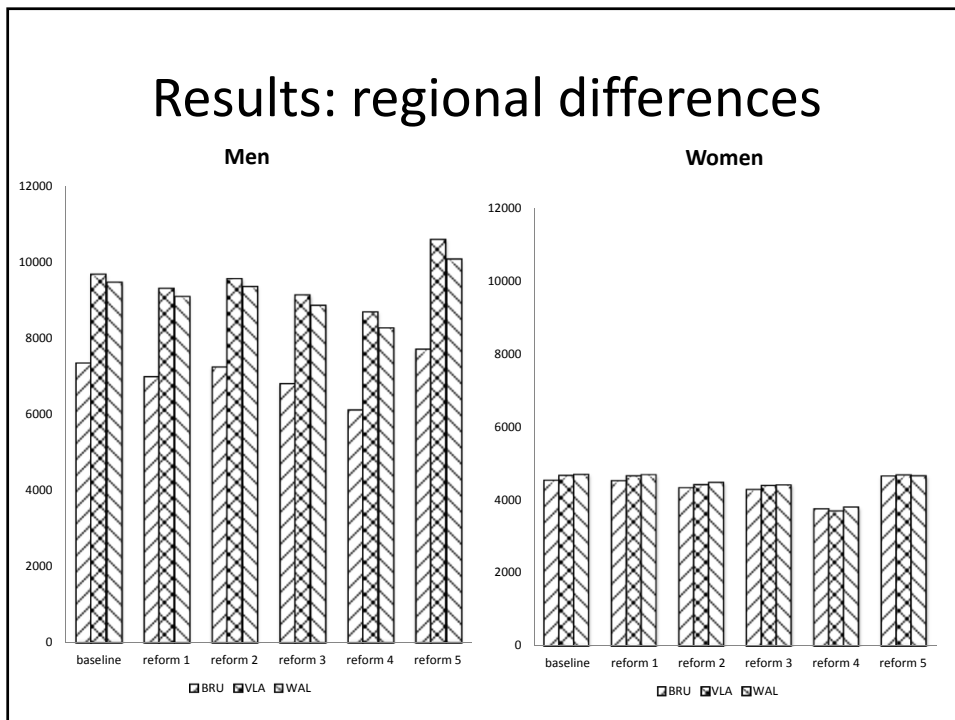
The drop is due to selective labor market exit...

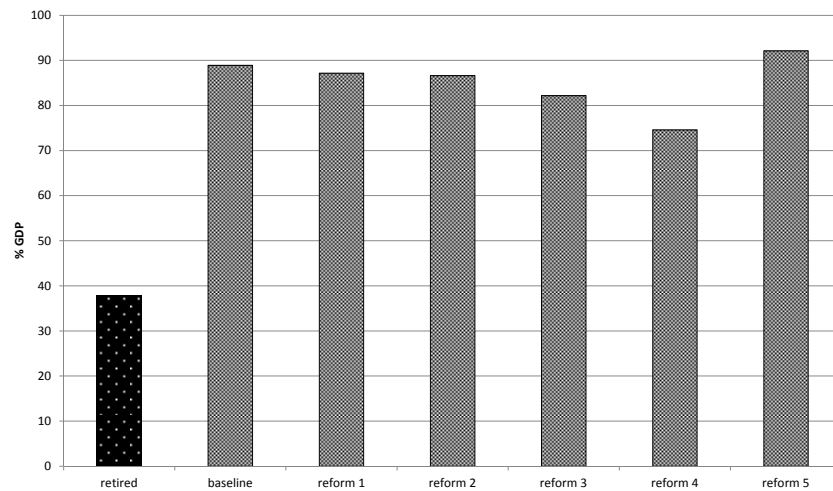


	Reform 1	Reform 2	Reform 3	Reform 4	Reform 5
% of losers	10.2	31.0	66.7	72.9	25.2
of which women	0.4	17.4	30.6	34.5	13.7
% of neutrals	89.8	68.4	31.4	25.4	11.3
% of winners	0.0	0.5	1.9	1.7	63.6
mean loss (k EUR)	-1,709	-637	-680	-1,505	-1,362
mean gain (k EUR)	0	631	223	518	1,108
biggest loss (k EUR)	-4,341	-6,660	-8,683	-13,774	-10,739
biggest gain(k EUR)	0	2,447	2,080	2,922	8,006
Gini coefficients	Baseline = 0.524				
	0.520	0.527	0.546	0.572	0.559

Results: distribution

- Women are affected in a selective way by different reforms
- Wide variation in terms of people impacted, and in terms of average impact per winner/loser
- Gini of Reform 3 (assimilated days) reacts quite strongly





Results: budget

- The size of the accrued liabilities towards current non-retirees is large (as compared to those liabilities to current retirees)
- Overall small effect of the parametric reforms
- Result of last reform hides a lot of variation within the population

Conclusions

- Effects vary a lot
- Partial reforms have little effect
- Regional differences are not particularly large
 - GDP is key driver, more than pension rights
- Pathway for the early stage of next year :
 - Apply to a matched population of EU-SILC (problem of small sample)