



EUROPEAN COMMISSION
Employment, Social Affairs and Equal Opportunities
Social Protection and Integration
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CAPP

Centro di Analisi delle Politiche Pubbliche

THE DISTRIBUTIVE LONG TERM EFFECTS OF THE ITALIAN PUBLIC PENSION SYSTEM

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Dissemination of research results

***"Assessing adequacy and long term distributive effects of the Italian Pension System.
A Microsimulation Approach"***

under the auspices of the Community Program for Employment and Social Solidarity (PROGRESS), European Commission

University of Modena and Reggio Emilia, 26th September 2011

OUTLINE

Under hypotheses of the central scenario we present a set of results on the long term distributive effects of the pension reform in Italy (2010 – 2050)

1. General aspects;
2. Focus on old age pensions;
3. Replacement rates and other distributive indicators
4. Social assistance pensions and poverty among old people (next presentation)



INTRODUCTION

- ▶ We completely describe the transition from DB to NDC
- ▶ We account for:
 - ▶ Old age pensions;
 - ▶ Survival and invalidity pensions;
 - ▶ Social assistance pension benefits.
- ▶ We compute:
 - ▶ Lifetime earnings and contributions;
 - ▶ Conversion factors
- ▶ Retirement decisions based on:
 - ▶ Eligibility criteria;
 - ▶ Intertemporal / adequacy considerations.

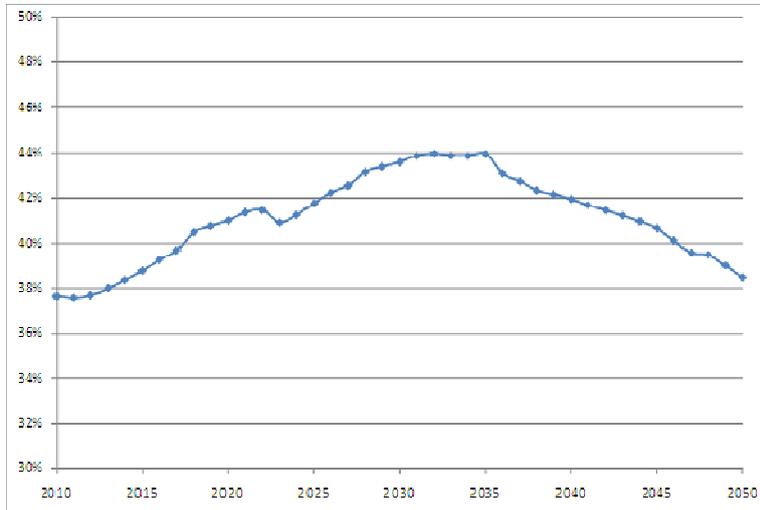


FINANCIAL SUSTAINABILITY ISSUES

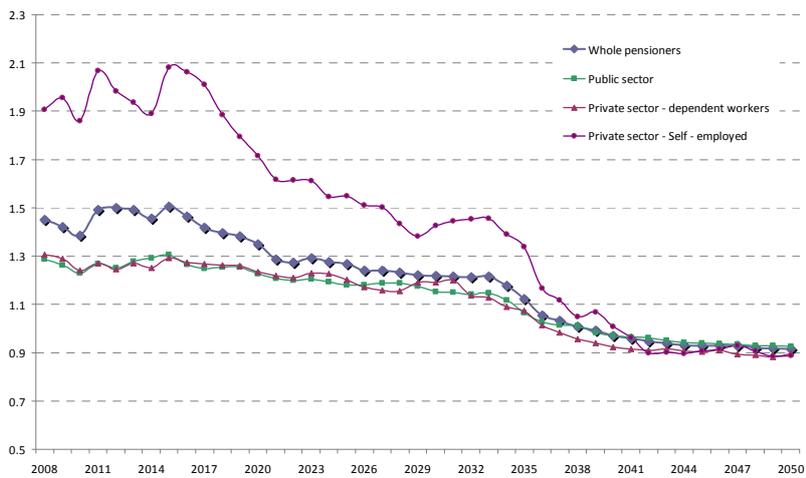
- ▶ CAPP_DYN estimates confirm AWG's results on the ability of the reform process of the Italian social security system to compress the dynamic of pension expenditure in the long run, although the rapid population ageing process expected for the coming decades.
- ▶ Different trends work in different direction:
 1. Ageing of the population (+);
 2. Increase in labour participation rates (+);
 3. Rise of retirement age (-);
 4. Phasing in of the NDC formula (-/+).



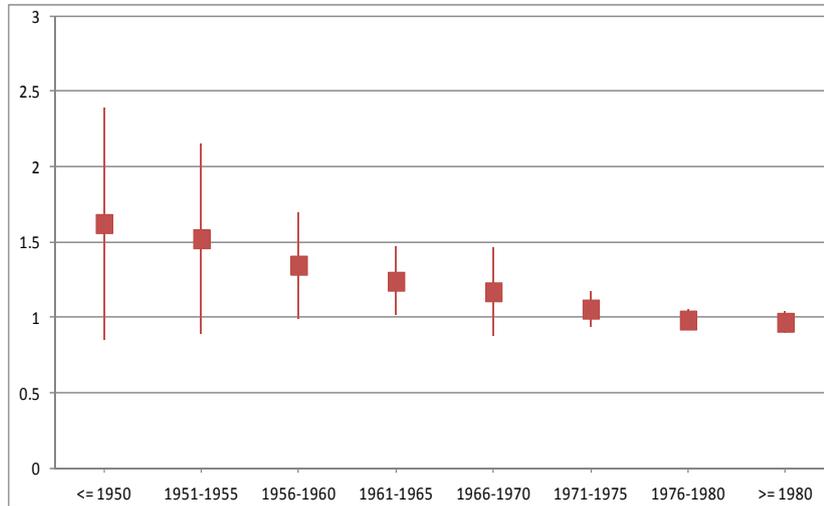
PENSION EXPENDITURE / WAGE MASS



NET PRESENT VALUE RATIO BY CATEGORIES



NET PRESENT VALUE RATIO BY COHORT



PENSION BENEFITS AND PENSIONERS OVER THE TOTAL NUMBER OF EMPLOYED INDIVIDUALS

Year	Old age benefits / Employed	Total pension benefits / Employed	Pensioners / Employed	Social benefits / Insurance benefits
2010	49.9%	85.7%	68.1%	10.4%
2020	50.1%	86.3%	65.6%	12.1%
2030	52.5%	91.1%	67.3%	14.0%
2040	53.8%	94.7%	68.1%	17.5%
2050	56.6%	99.1%	69.2%	20.4%

DETERMINANTS OF FINANCIAL SUSTAINABILITY

- ▶ On the one side:
 - ▶ greying of the population;
 - ▶ slow transition to NDC;
 - ▶ low growth of earnings.
- ▶ On the other side:
 - ▶ increased participation rate;
 - ▶ rise of retirement age;
 - ▶ introduction of more effective means test;
 - ▶ Indexation mechanism

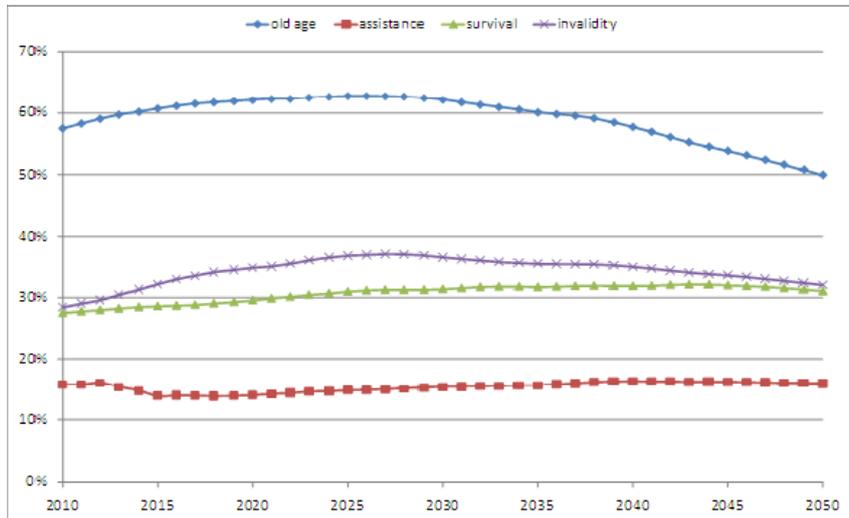


What's about
ADEQUACY?

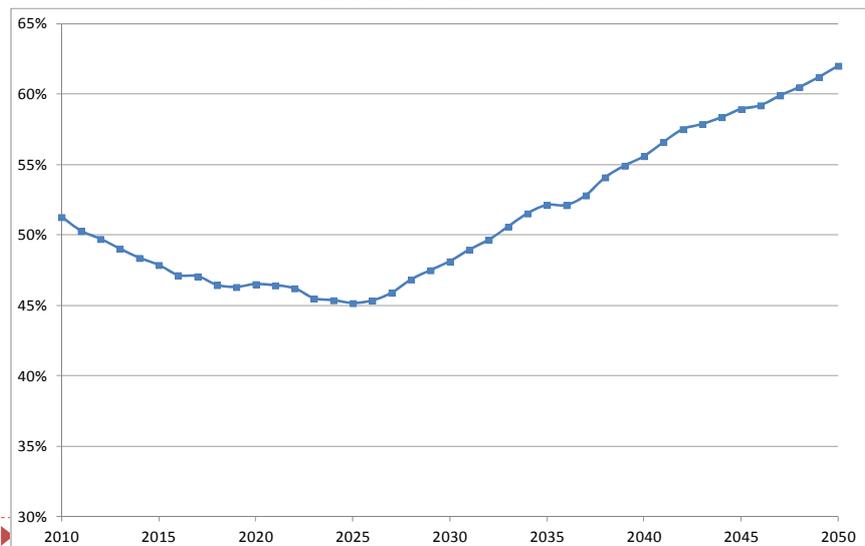
What's about
DISTRIBUTION/INEQUALITY?



AVERAGE PENSION BENEFITS OVER AVERAGE EARNINGS. 2010 – 2050



SHARE OF OLD AGE PENSIONS BELOW 60% OF THE MEDIAN EARNINGS



OLD AGE PENSIONERS: DESCRIPTIVE STATISTICS

Year	1990	2010	2030	2050
Share of NDC pensions	0.0%	5.4%	5.9%	59.4%
Share of men	54.0%	55.2%	50.9%	41.4%
Share of pensioners < 65 yrs old	37.6%	23.7%	10.2%	3.8%
Share of pensioners >= 80 yrs old	10.6%	16.9%	31.1%	40.3%
Average age of retirement of new pensioners	56.9	60.4	63.6	65.0
<i>men</i>	57.6	60.5	63.8	65.5
<i>women</i>	55.5	60.3	63.4	64.7
Average number of yearly contributions of n. p.		36.4	33.0	33.6
<i>men</i>	n.a.	37.2	36.5	39.1
<i>women</i>	n.a.	34.2	29.7	30.1

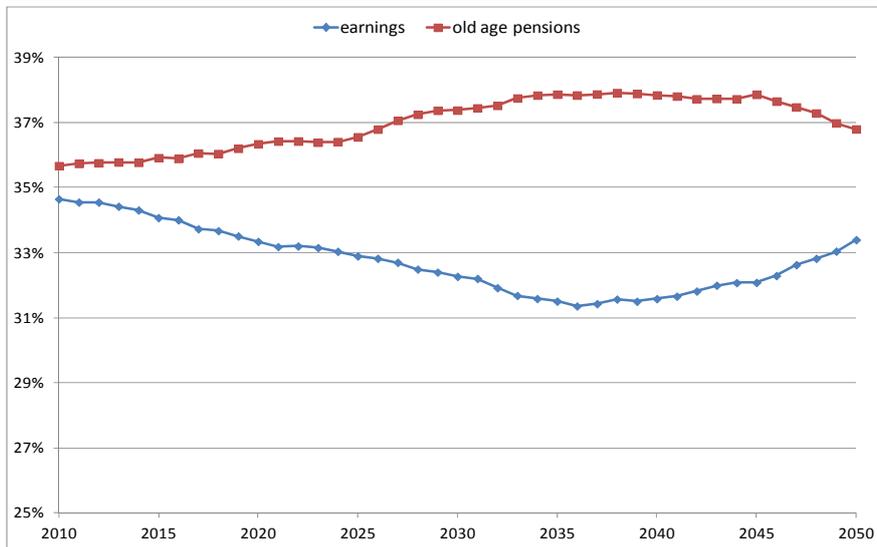


OLD AGE PENSIONS AND EARNINGS: DISTRIBUTIVE ANALYSIS

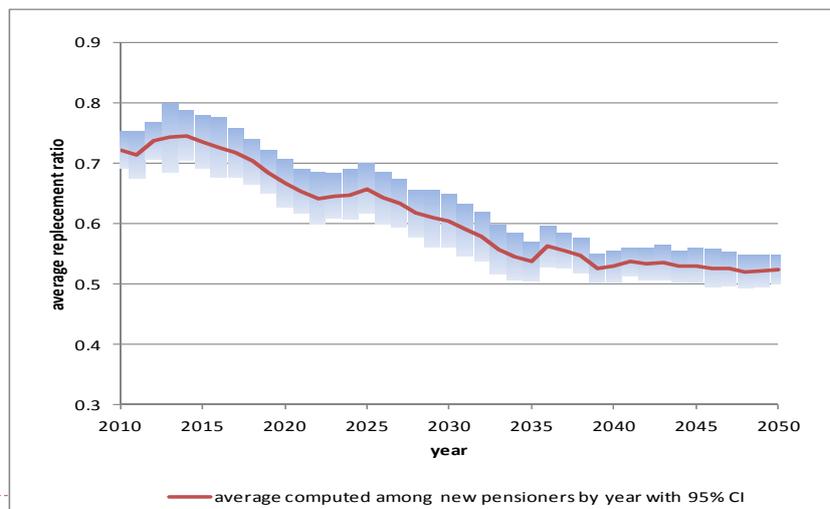
Year	Mean	CV	Mean / Median	p95 / p5	Gini index	% of procapita GDP
Old age pensions						
2010	15,196	0.71	1.20	6.76	35.7%	68%
2030	20,120	0.76	1.18	12.36	37.4%	71%
2050	20,370	0.72	1.17	14.21	36.8%	60%
Earnings						
2010	26,079	0.79	1.21	8.22	34.7%	116%
2030	32,575	0.73	1.18	6.91	32.3%	115%
2050	41,598	0.68	1.17	7.87	33.4%	123%



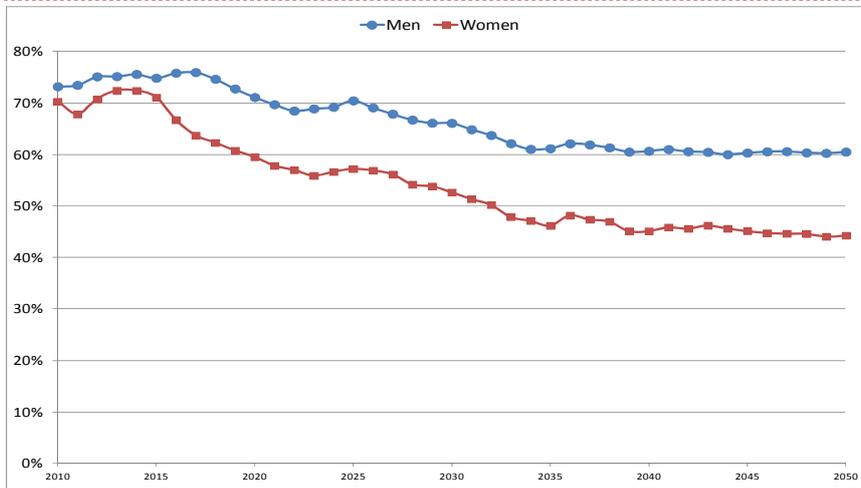
GINI INDEX ON OLD AGE PENSIONS AND EARNINGS: 2010 - 2050



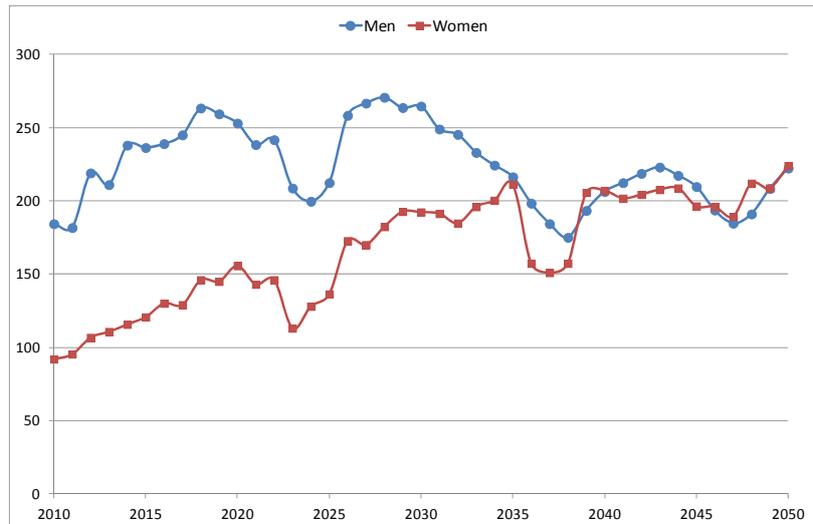
GROSS REPLACEMENT RATE FOR THE WHOLE POPULATION OF NEW PENSIONERS. 2010 - 2050



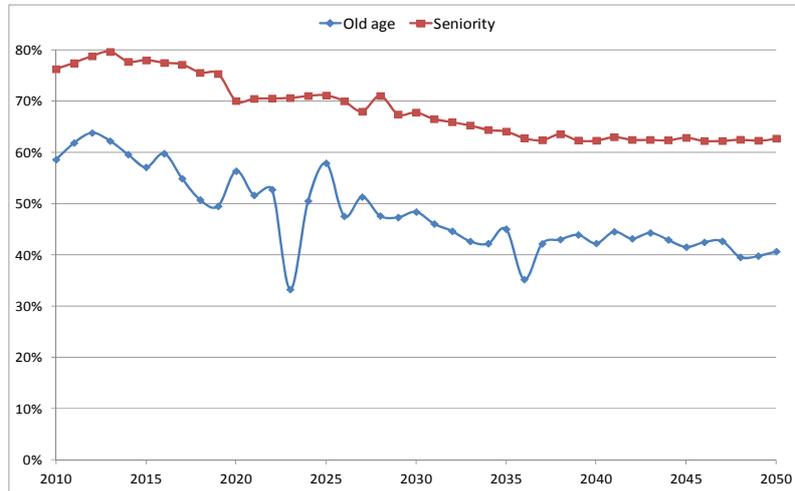
REPLACEMENT RATES OF NEW PENSIONERS BY GENDER



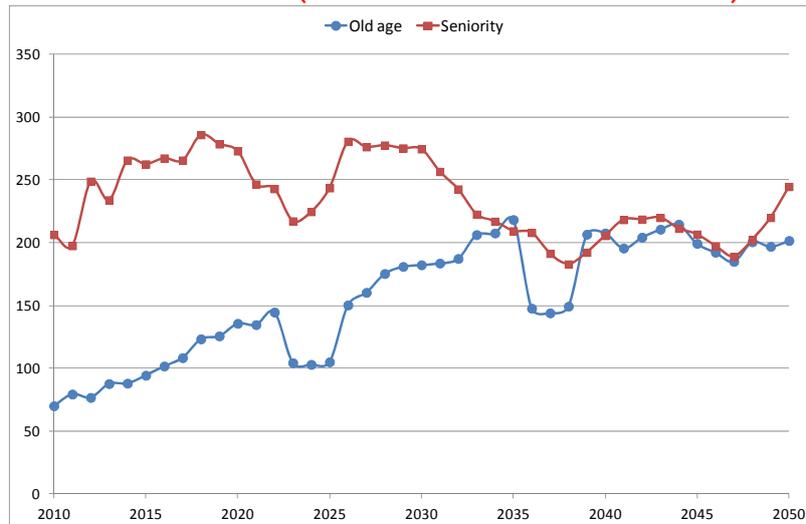
NUMBER OF NEW PENSIONERS BY GENDER



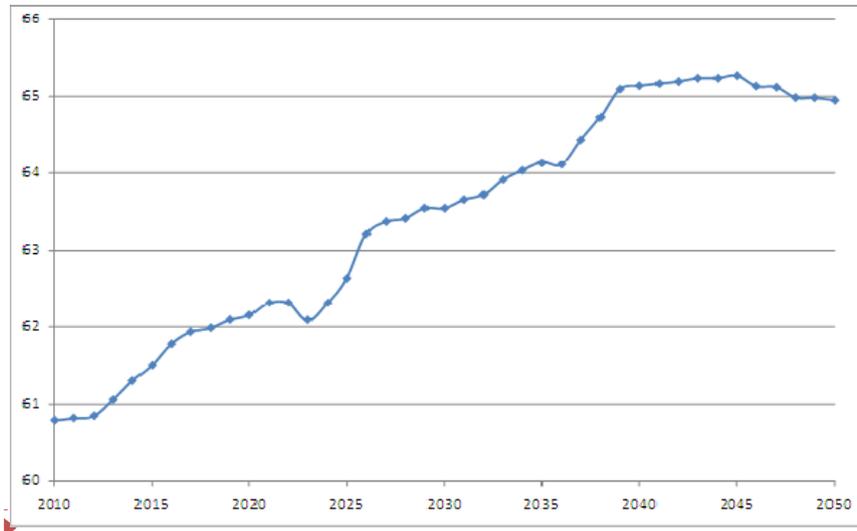
REPLACEMENT RATES OF NEW PENSIONERS BY KIND OF BENEFITS : OLD AGE VS SENIORITY



NUMBER OF NEW PENSIONERS BY GENDER (KIND OF BENEFITS)



**AVERAGE RETIREMENT AGE FOR THE
WHOLE POPULATION OF NEW
PENSIONERS. 2010 – 2050**



**POPULATION OF NEW PENSIONERS
2010 -2050 DIVIDED BY DECILE OF
REPLACEMENT RATES**

Decile Replacement Rate	Share of women	Share of NDC	Share of self employed	Share of old age pensioners	Share of those with seniority <30	
1	32.4%	78.8%	72.4%	57.0%	100.0%	67.8%
2	44.2%	89.5%	69.5%	17.7%	100.0%	47.7%
9	100.9%	21.7%	1.3%	18.6%	7.4%	0.5%
10	93.6%	25.5%	0.4%	7.4%	8.4%	3.2%



**RATIO BETWEEN THE AVERAGE PENSION
BENEFIT PROVIDED IN YEAR $t+s$ AND
AVERAGE EARNINGS IN $t+s$ FOR THOSE
RETIRED IN TIME t**

Year of retirement (t)	Ratio computed in (t+s)				
	same year (s=0)	after 10 years (s=10)	after 20 years (s=20)	after 30 years (s=30)	after 40 years (s=40)
2010	92.9%	84.0%	73.8%	67.2%	53.8%
2020	74.7%	65.2%	58.2%	46.6%	
2030	67.9%	59.7%	51.6%		
2040	54.8%	47.1%			
2050	49.1%				

**RATIO BETWEEN THE AVERAGE PENSION
BENEFIT PROVIDED IN YEAR $t+s$ AND AVERAGE
PENSIONS IN $t+s$ FOR THOSE RETIRED IN TIME t**

Year of retirement (t)	Ratio computed in (t+s)				
	same year (s=0)	after 10 years (s=10)	after 20 years (s=20)	after 30 years (s=30)	after 40 years (s=40)
2010	159.5%	134.9%	119.5%	117.8%	109.9%
2020	120.1%	105.6%	102.0%	95.3%	
2030	109.9%	104.6%	105.3%		
2040	96.1%	96.2%			
2050	100.3%				

SUMMING UP

- ▶ Inter-generation fairness and uniformity of treatment among categories of workers, but only in the long run (after 2035);
- ▶ Retirement age will increase significantly;

but...

- ▶ **Adequacy problem:** Dramatic reduction of RR although the significant increase in retirement age in the long-run;
- ▶ **Distributive problem:** increase inequality among old-age pensions mainly during the transition phase; Indexation mechanism partially counterbalances the effect of the phasing in of NDC;
- ▶ **Inequality pensioners/workers stronger than inequality within pensioners;**
- ▶ **Risk of poverty problem:** in particular for those with interrupted careers (i.e. women), old age (not seniority) pensioners and self employed).





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THE WELFARE COMPONENT OF THE ITALIAN PUBLIC PENSION SYSTEM AND POVERTY AMONG OLD-AGE POPULATION

Carlo Mazzaferro

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INTRODUCTION

CAPP_DYN takes into account most of the welfare components of the Italian Security System.

Namely :

1. Minimum pensions (*integrazioni al minimo*);
 2. Social assistance pensions (*pensioni e assegni sociali*);
 3. Supplements to minimum and social assistance; pensions (*maggiorazioni sociali*).
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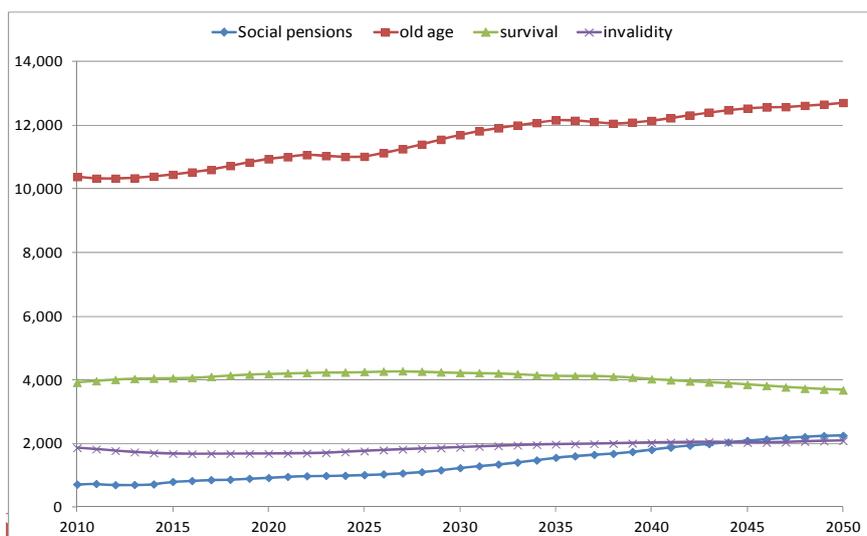
INTRODUCTION

CAPP_DYN tracks information on family composition and most of disposable income components

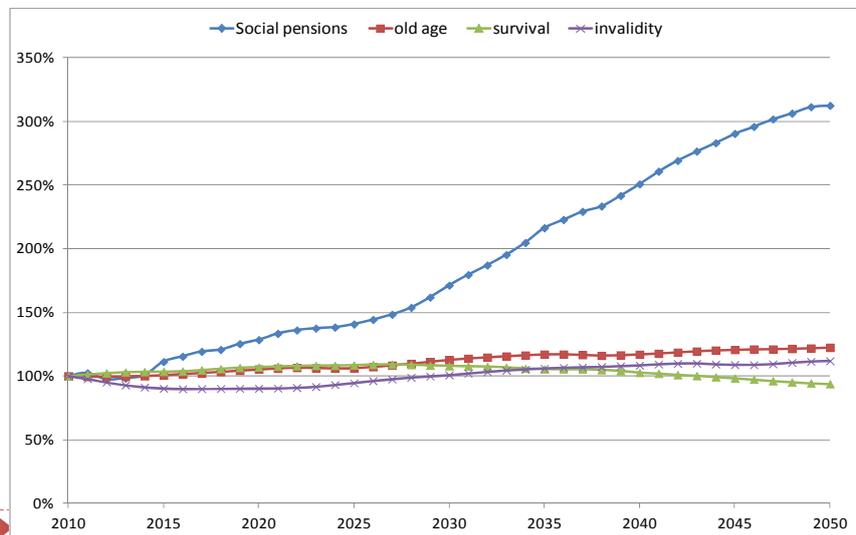
- ▶ Therefore we can:
 1. account for means test schemes in the assignment of welfare components;
 2. Perform Inequality/Poverty analysis at benefit unit level.



TOTAL NUMBER OF OLD AGE, SURVIVAL, INVALIDITY AND SOCIAL ASSISTANCE PENSIONS. 2010 - 2050



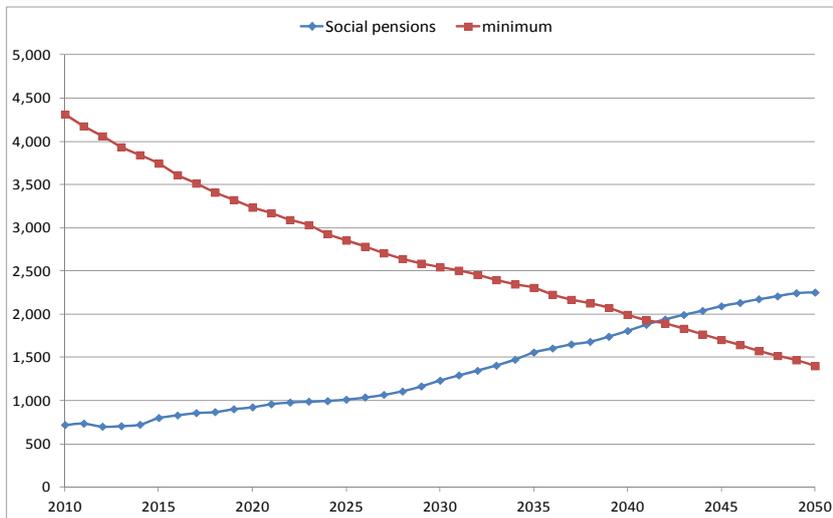
GROWTH OF OLD AGE, SURVIVAL, INVALIDITY AND SOCIAL ASSISTANCE PENSIONS. 2010 - 2050



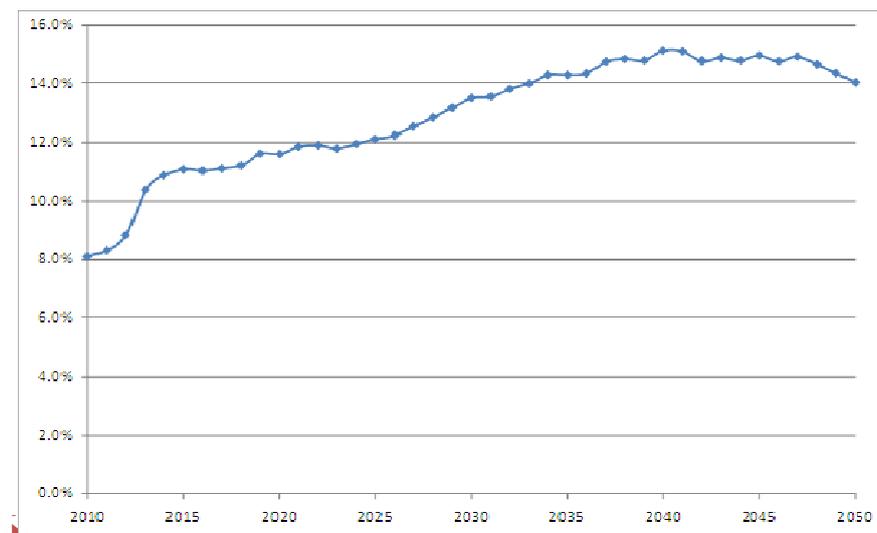
Why are social assistance pensions growing so heavily with respect to other forms of pension benefits?

- ▶ Two possible explanations:
 1. Increase of poverty risks among future old-age pensioners;
 2. Social assistance pensions will replace other benefit (i.e. *integrazioni al minimo*).

NUMBER OF MINIMUM PENSIONS AND SOCIAL ASSISTANCE PENSIONS



SHARE OF PENSION BENEFITS WHICH RECEIVE A SUPPLEMENT (“MAGGIORAZIONE”)

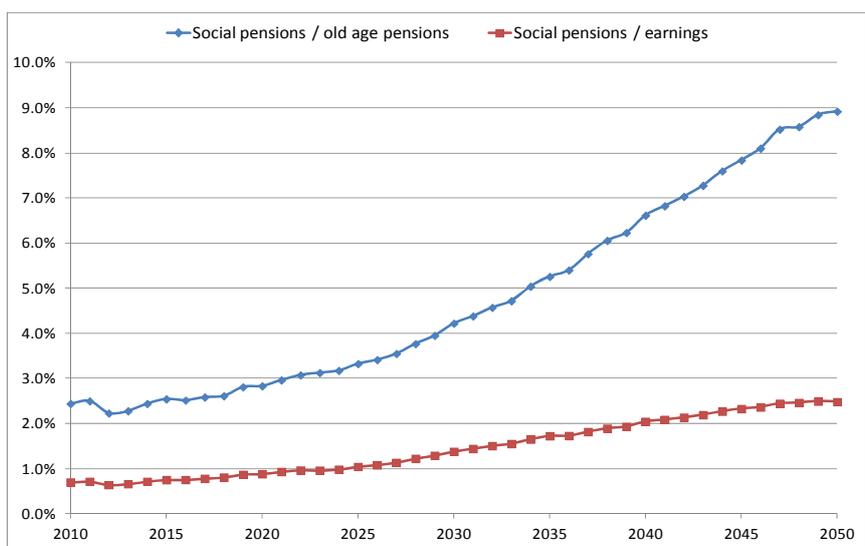


How expenditure on social assistance benefits and supplements (*maggiorazioni*) are likely to evolve in the next decades ?

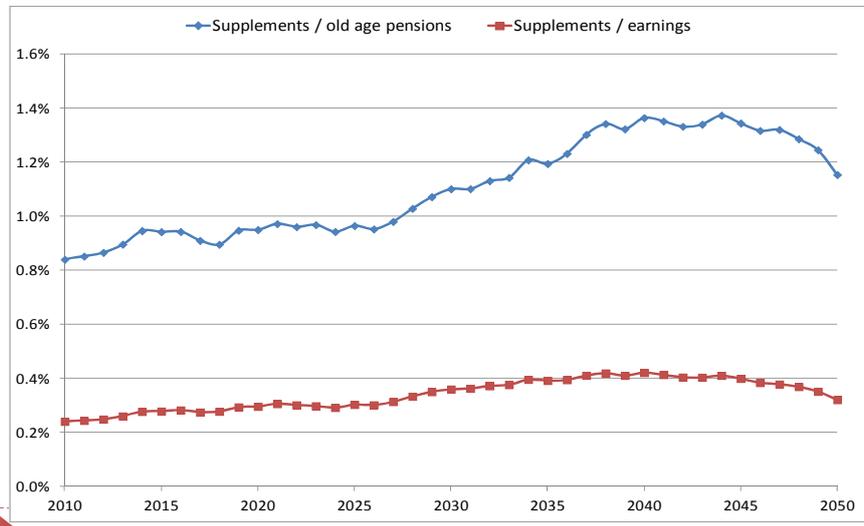
1. With respect to the wage mass;
2. w. r.t. old age pension expenditure.



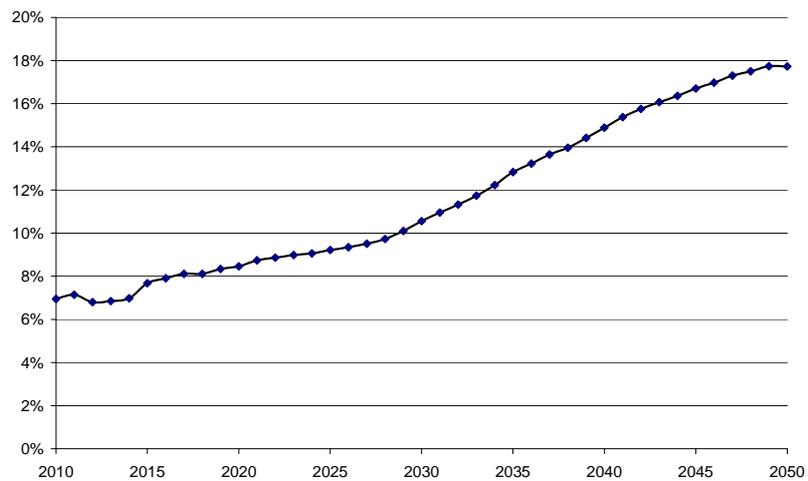
EXPENDITURE ON SOCIAL PENSIONS AS A SHARE OF THE EXPENDITURE FOR OLD-AGE PENSIONS AND EARNINGS



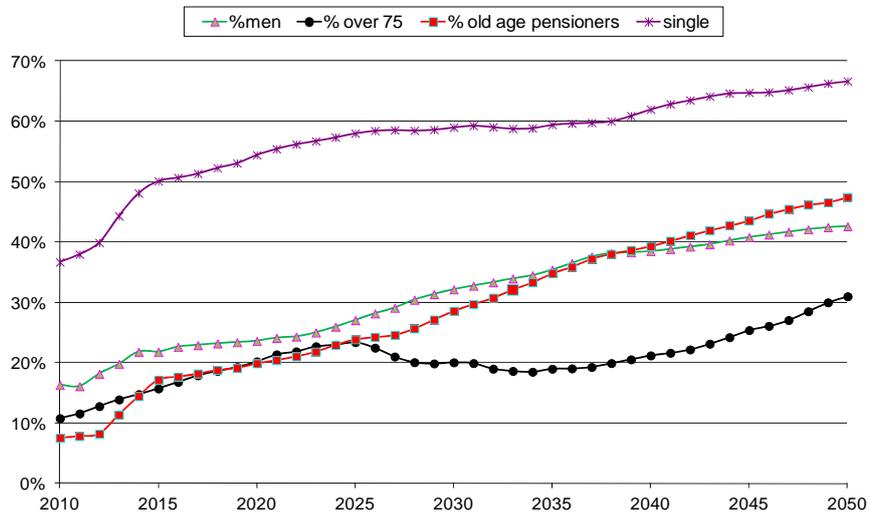
EXPENDITURE ON SUPPLEMENTS AS A SHARE OF THE EXPENDITURE FOR O.A.P. AND EARNINGS



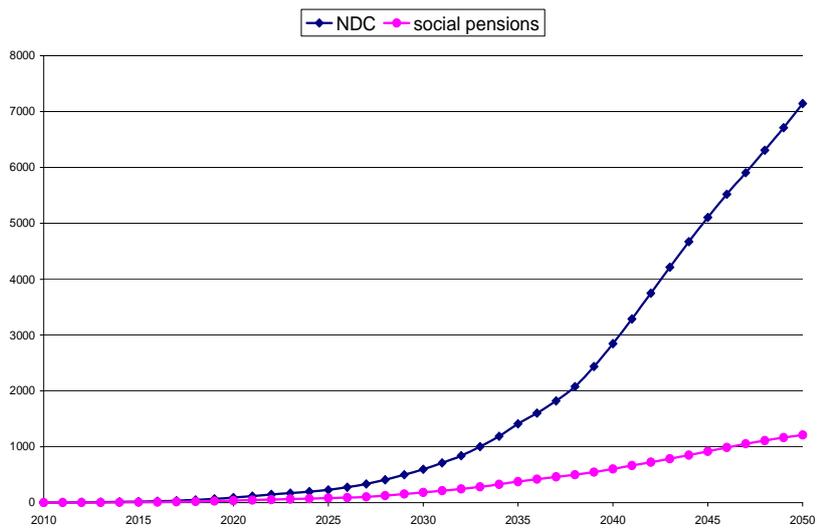
NUMBER OF SOCIAL ASSISTANCE PENSIONS OVER THE NUMBER OF OLD-AGE PENSIONS



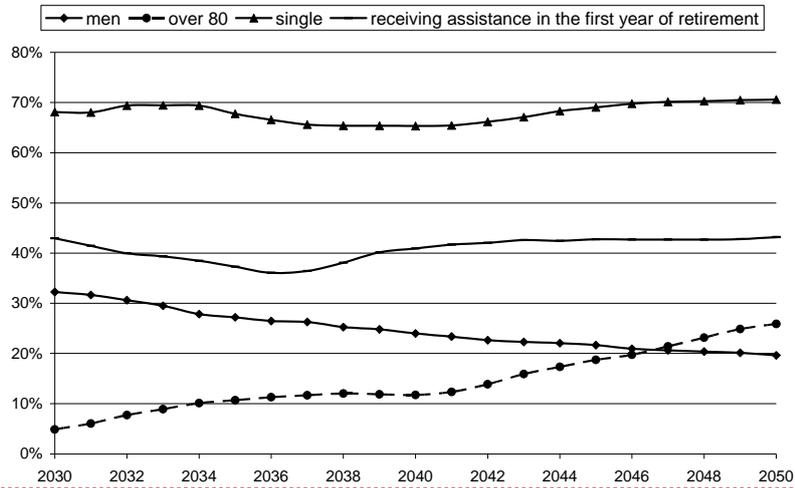
SOCIAL ASSISTANCE PENSION RECIPIENTS: COMPOSITION



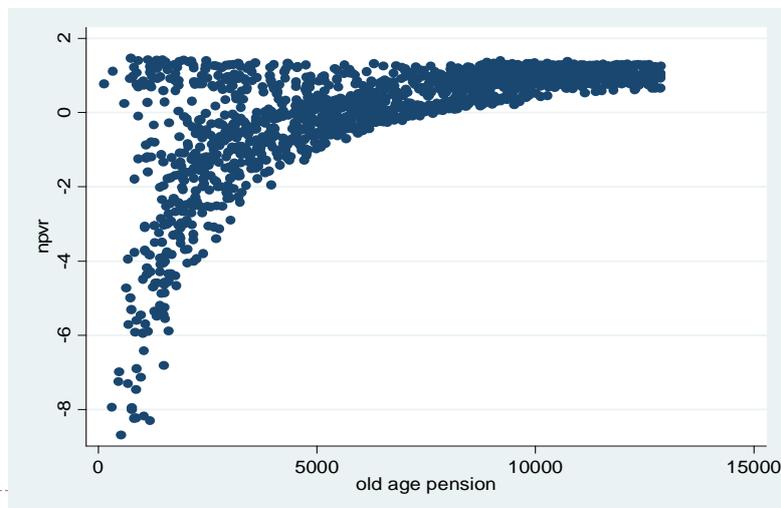
NOTIONAL DEFINED CONTRIBUTION OLD- AGE PENSIONS AND SOCIAL PENSIONS



COMPOSITION OF THE POPULATION OF OLD AGE PENSIONERS WHO IS RECEIVING A SOCIAL ASSISTANCE BENEFIT



OLD AGE PENSION AND NET PRESENT VALUE RATIO FOR OLD AGE PENSIONERS WHO IS RECEIVING A SOCIAL ASSISTANCE PENSION



Year	Mean level of social pensions as a percentage of		Mean level of (social pension + old age pension) as a percentage of	
	mean old age pension	mean earning	mean old age pension	mean earning
2020	22.0%	13.7%	36.6%	22.8%
2030	21.1%	13.1%	40.4%	24.9%
2040	21.6%	12.3%	47.0%	26.8%
2050	21.6%	10.6%	56.2%	27.5%

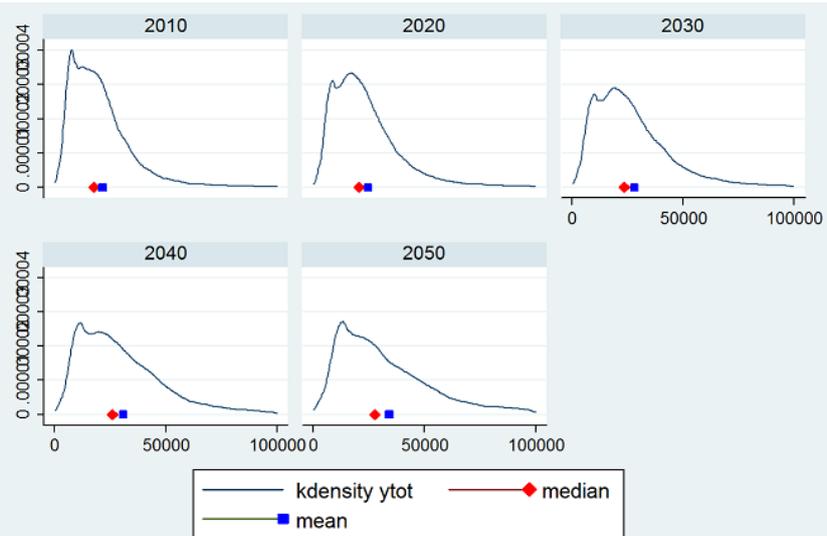
SUMMING UP

1. dramatic increase of eligibles for welfare components in the medium long run;
2. Not particularly expensive in term of wage mass/total pension expenditure (low level, effective means tests)
3. Important distortions on retirement decisions;
4. Particularly interested: over 75, singles, old age pensioners;
5. Timeless of receipt: 40% will receive social assistance benefits some years after being retired.

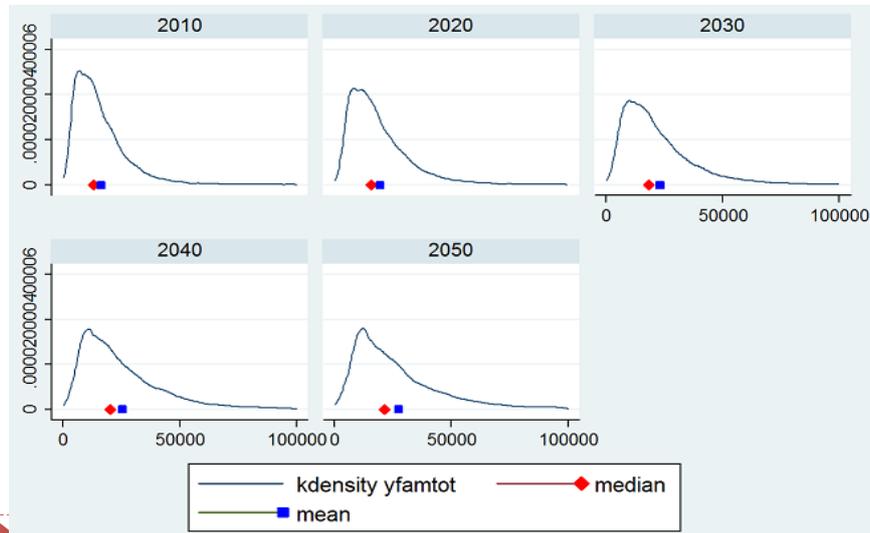
THE RELATIVE ECONOMIC POSITION OF PENSIONERS IN THE ITALIAN ECONOMY. A LONG TERM PERSPECTIVE



KERNEL DISTRIBUTION OF THE INDIVIDUAL INCOME BY YEARS



KERNEL DISTRIBUTION OF THE EQUIVALISED HOUSEHOLD INCOME IN DIFFERENT YEARS



FRACTION OF HOUSEHOLD OF PENSIONERS WITH EQUIVALISED HOUSEHOLD INCOME BELOW THE MEDIAN VALUE

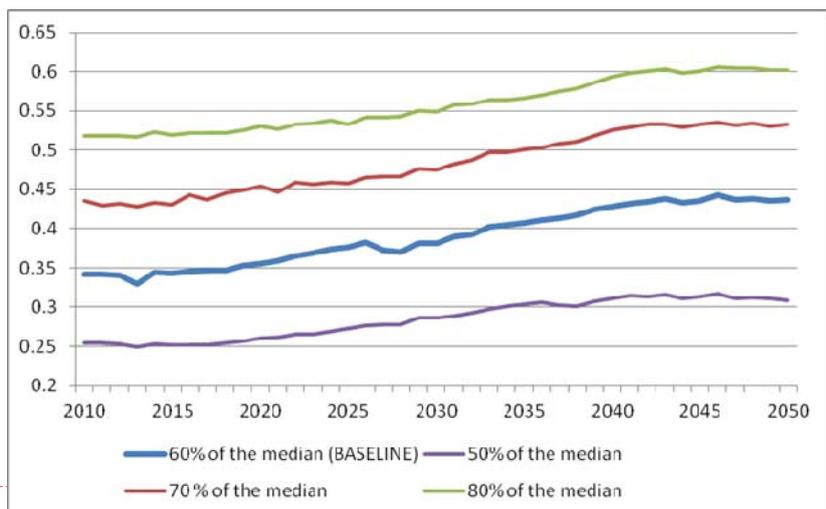
year	below	above
2010	67.26	32.74
2020	64.99	35.01
2030	63.68	36.32
2040	63.92	36.08
2050	65.00	35.00

POVERTY ANALYSIS

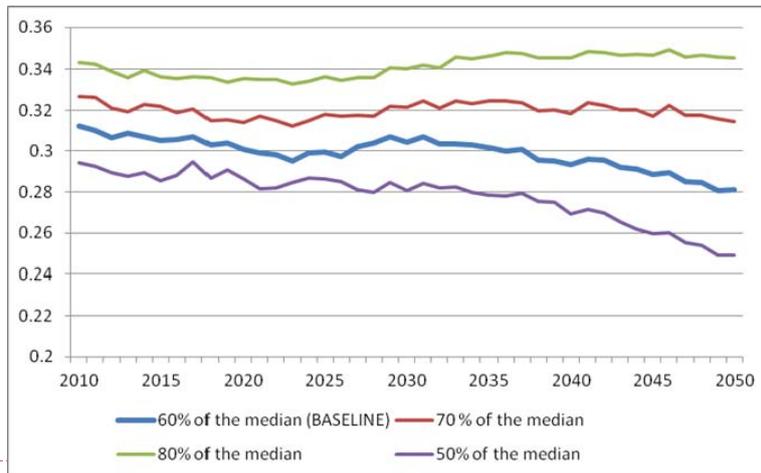
- ▶ Income definition: includes earnings, old-age and seniority pensions, survival pensions, disability pensions and social assistance benefits earned by members of the household;
 - ▶ Gross of direct/indirect taxes and National Insurance contribution paid by workers;
 - ▶ Equivalised using OECD equivalence scale;
- ▶ Poverty line (*official definition*) : 60% of annual median equivalised income.



HEAD COUNT RATIO (HCR) AMONG PENSIONERS ACCORDING TO DIFFERENT POVERTY LINES, BY YEAR



INCOME GAP RATIO (IGR) AMONG PENSIONERS ACCORDING TO DIFFERENT POVERTY LINES, BY YEAR



SUMMING UP

1. Poverty risk is expected to increase in the coming decades;
2. The analysis at individual level shows a significant reduction of the NDC benefits to protect from the risk of poverty;
3. The analysis at household level shows, however, that the increasing % of women in receipt of insurance pensions will (partially) counterbalance the expected drop in the NDC benefits.
4. HCR among household of pensioners will increase of about 10% from the current value.