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Reforming an Unsustainable Public Pension System: The German Case

Axel Börsch-Supan

*Director, Mannheim Research Institute for the Economics of Aging (MEa),
Mannheim, Germany*

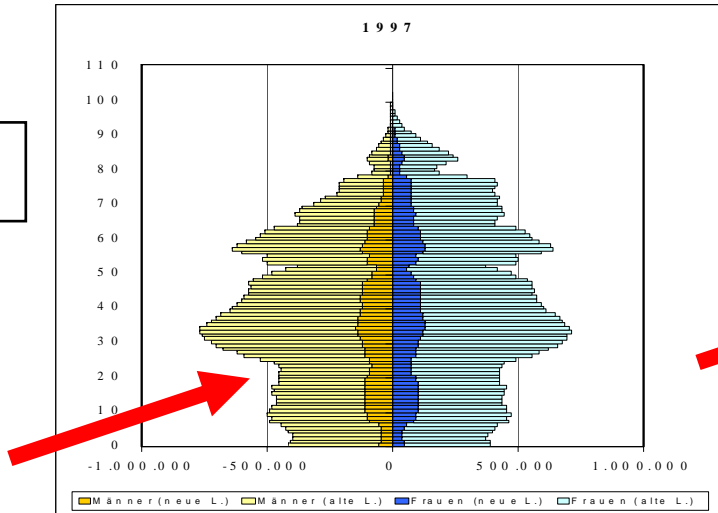
*Research Associate, National Bureau of Economic Research (NBER),
Cambridge, Massachusetts, USA*

**AARP Conference “Reinventing Retirement: Balancing Risk”
Washington D.C., July 18-19, 2005.**

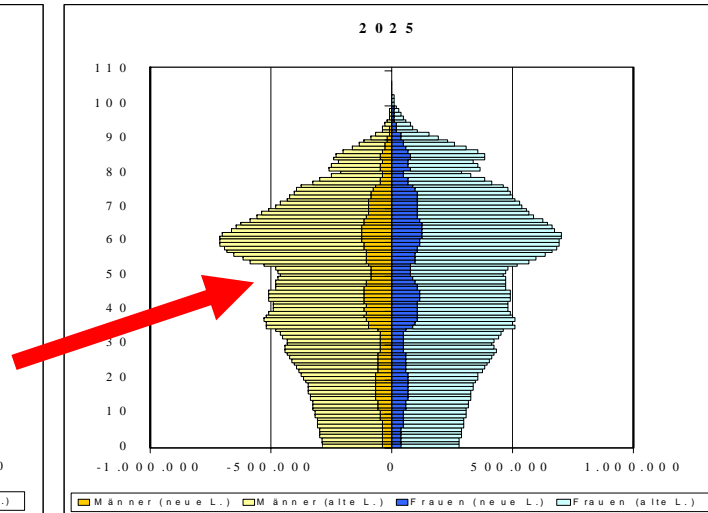
Cause 1: Baby Boom/Bust Transition

Entwicklung der Altersstruktur der Bevölkerung in den alten und neuen Bundesländern

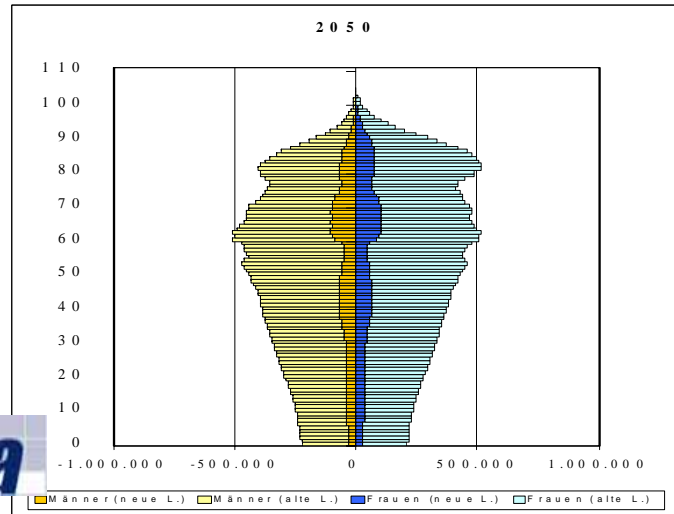
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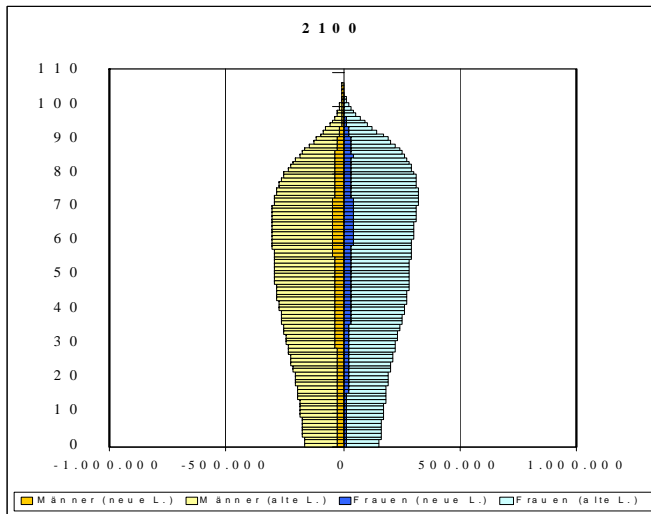
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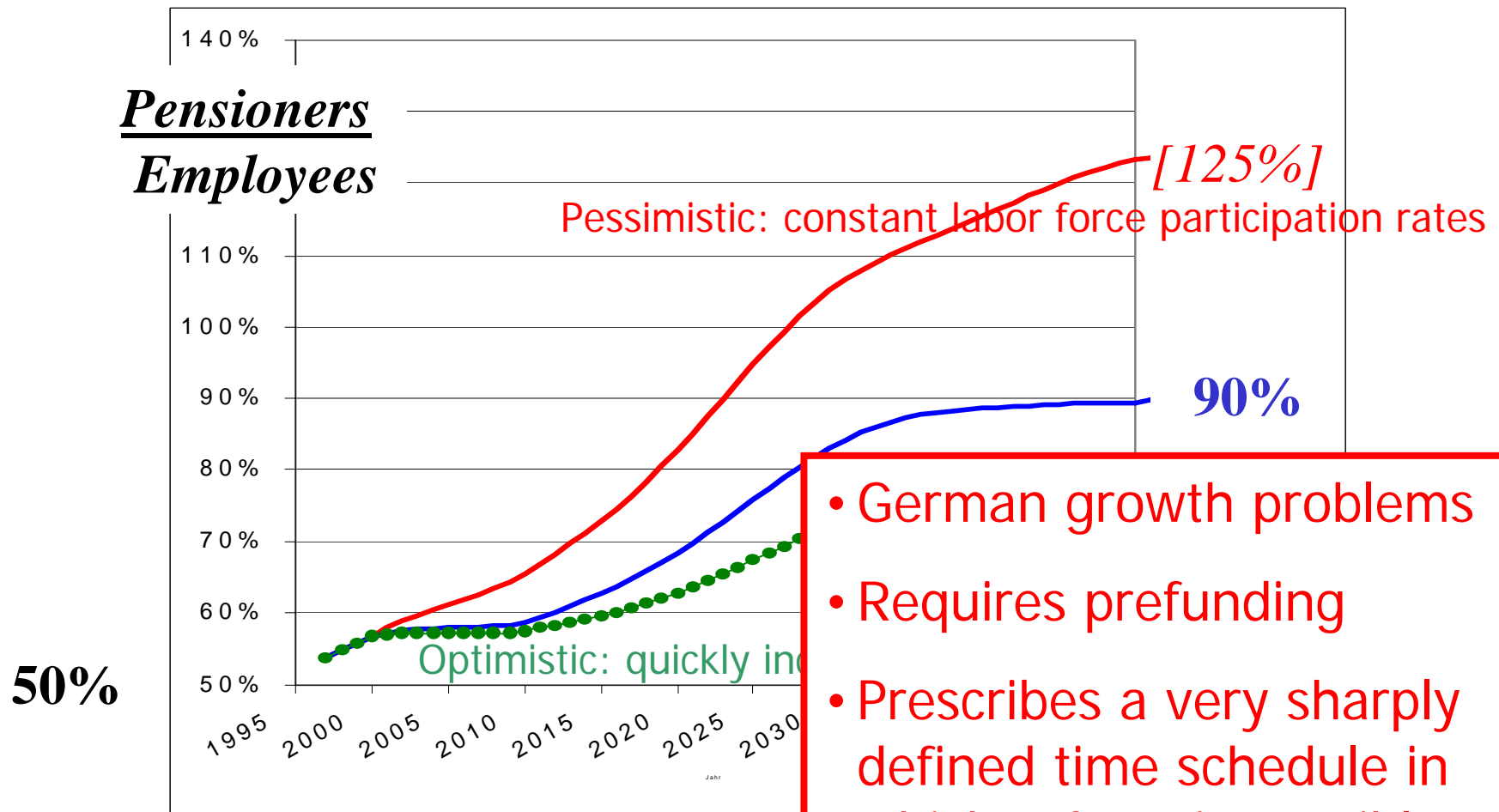
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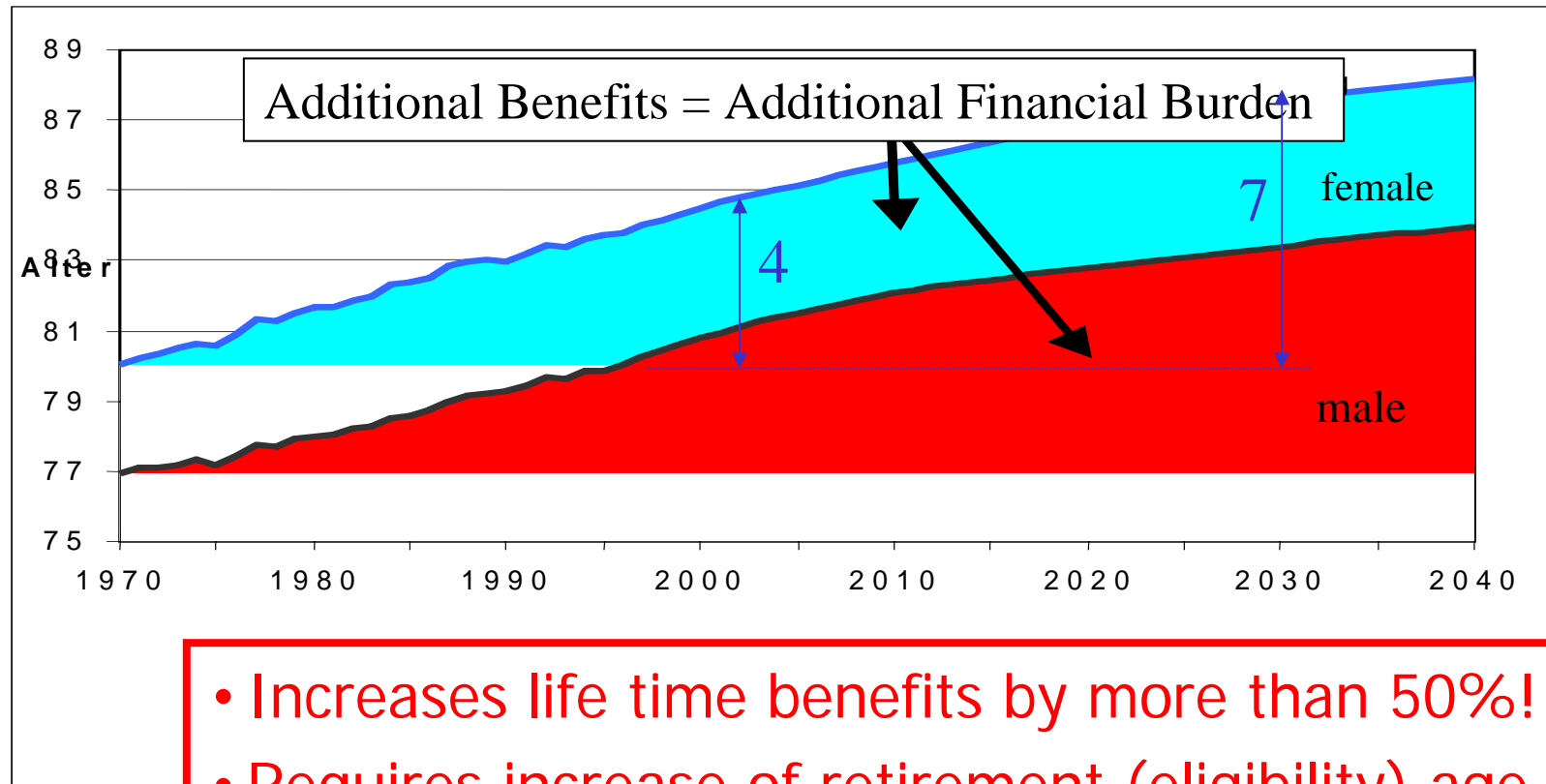
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Ballooning System Dependency

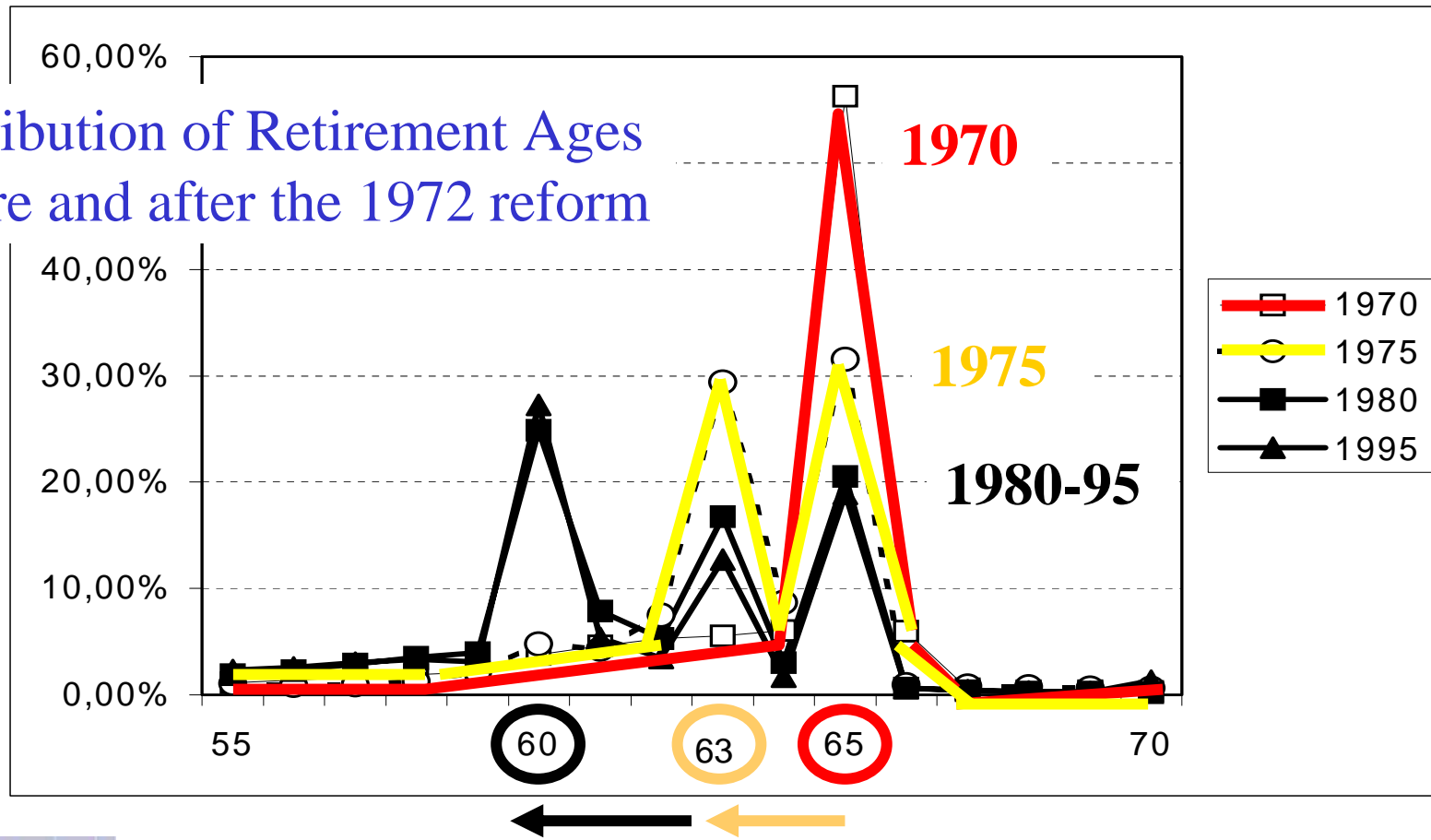


Cause 2: Increasing Life Expectancy



Cause 3: Costly Incentive Effects

Distribution of Retirement Ages before and after the 1972 reform



The logo for 'mea' is displayed in a bold, italicized, blue font. It is positioned on a horizontal band that features a collage of faded, grayscale images of people in various settings, possibly related to social security or public policy.

“Rational policy approach”:

Taylor cures strictly to causes and effects

Babyboom/bust: -cap contribution rates (2001)

-reduce benefits (Quasi-NDC, 2004)

-pre-fund pension gap (DC, 2001)

Longevity: shift of retirement age: 2006

Incentive effects: actuarial adjustments: 1992 reform

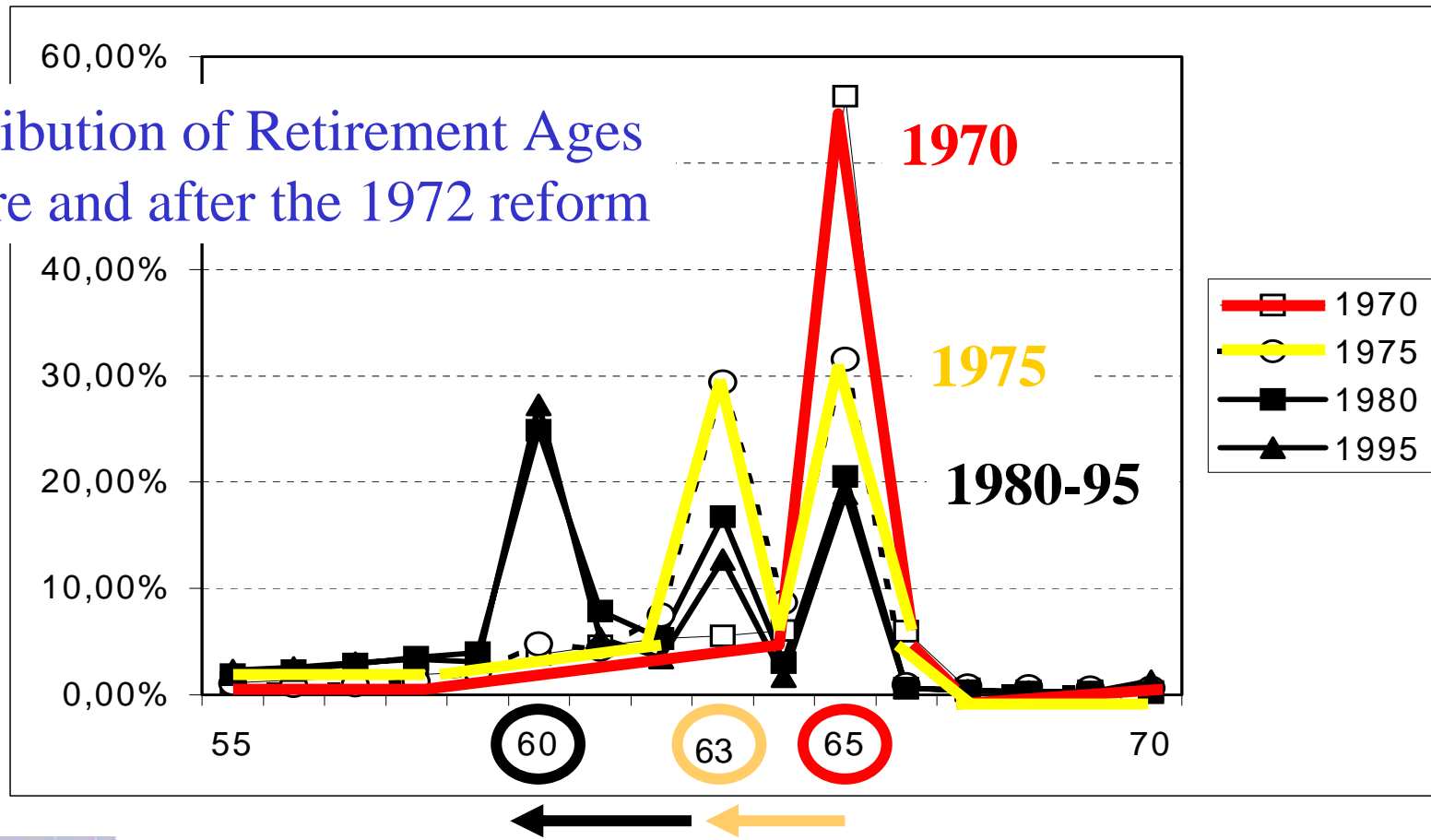
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Actual policy implementation

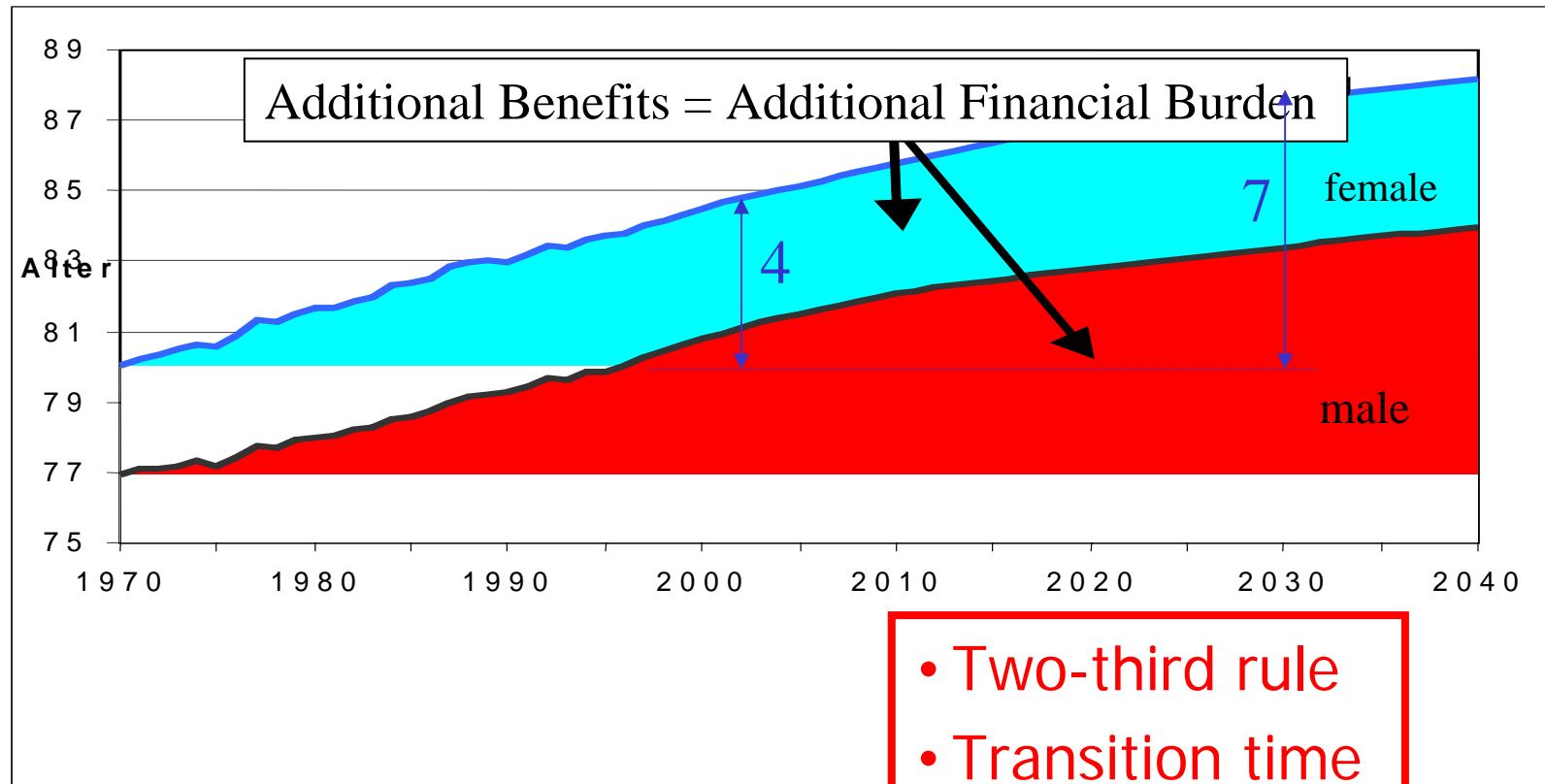
- Due to **harsh demographics in Germany**: little maneuvering room (Scylla-Charybdis)
- Of course: retirement age, actuarial adjustments
- Need to cut pay-as-you-benefits also for pensioners
- Long-term transparent benefit reduction schedule
- Transition problems for 45-55 year olds
- Moderate rates of return suffice for young
- Need to maintain private pension contributions

Policy: Actuarial adjustments

Distribution of Retirement Ages before and after the 1972 reform



Policy: Retirement (eligibility) age

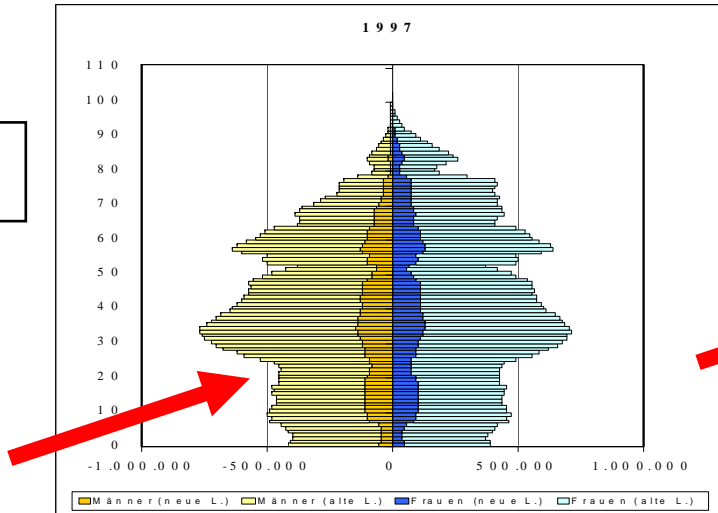


- Two-third rule
- Transition time
- Fails to undo 1972 effect

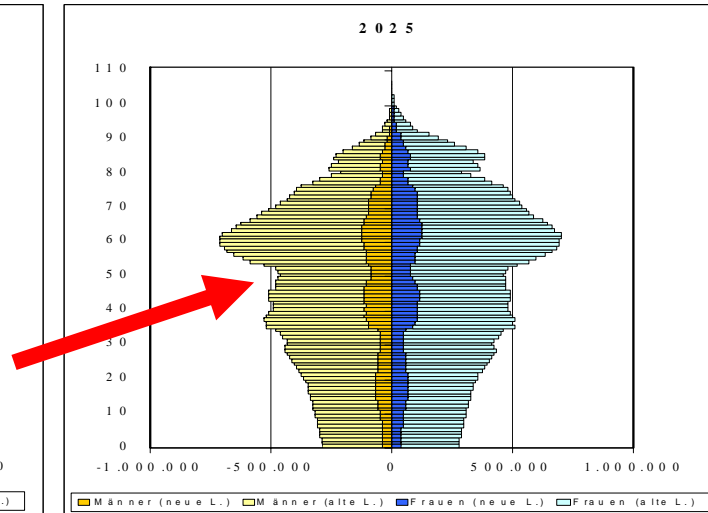
Policy: Reduce DB-PAYG, offset by prefunded pension plans

Schaubild 1.6
Entwicklung der Altersstruktur der Bevölkerung in den alten und neuen Bundesländern

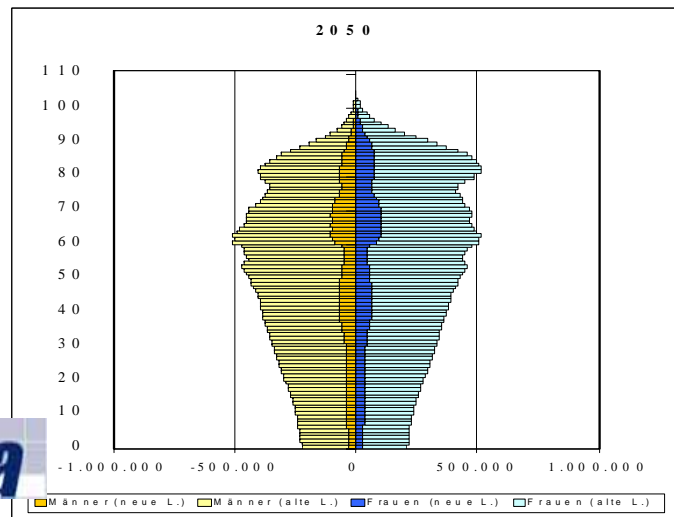
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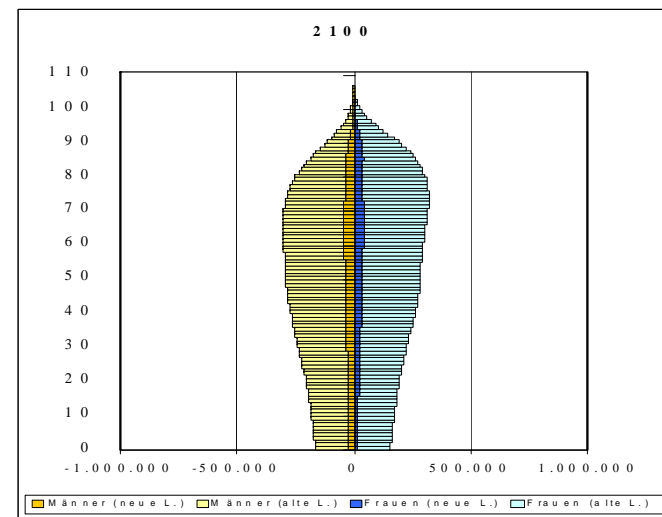
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Babyboom/bust: Quasi-NDC

General idea of Quasi-NDC system with “sustainability factor”:

Budget equation of a PAYG system:

$$\text{cont_rate} \cdot \text{wage} \cdot \text{NWORK} = \text{repl_rate} \cdot \text{wage} \cdot \text{NPENS}$$

Hold $\text{cont_rate} = \text{repl_rate} \cdot \text{NPENS}/\text{NWORK} = \text{constant!}$

\Rightarrow repl_rate has to be proportional to $\text{NWORK}/\text{NPENS}$

System dependency ratio

Implementation in Germany

Benefit = **Point_Value** * **Points** * Actuarial_Adjustment

1. **Points: individual earnings history:**

Points are accumulated over entire life cycle

1 Point = 1 year of average earnings in that year

2. **Point_Value: macroeconomics and demography**

Point_Value for each calendar year (not cohort!)

determined by *wage growth* net of contributions

and *change of system dependency ratio*

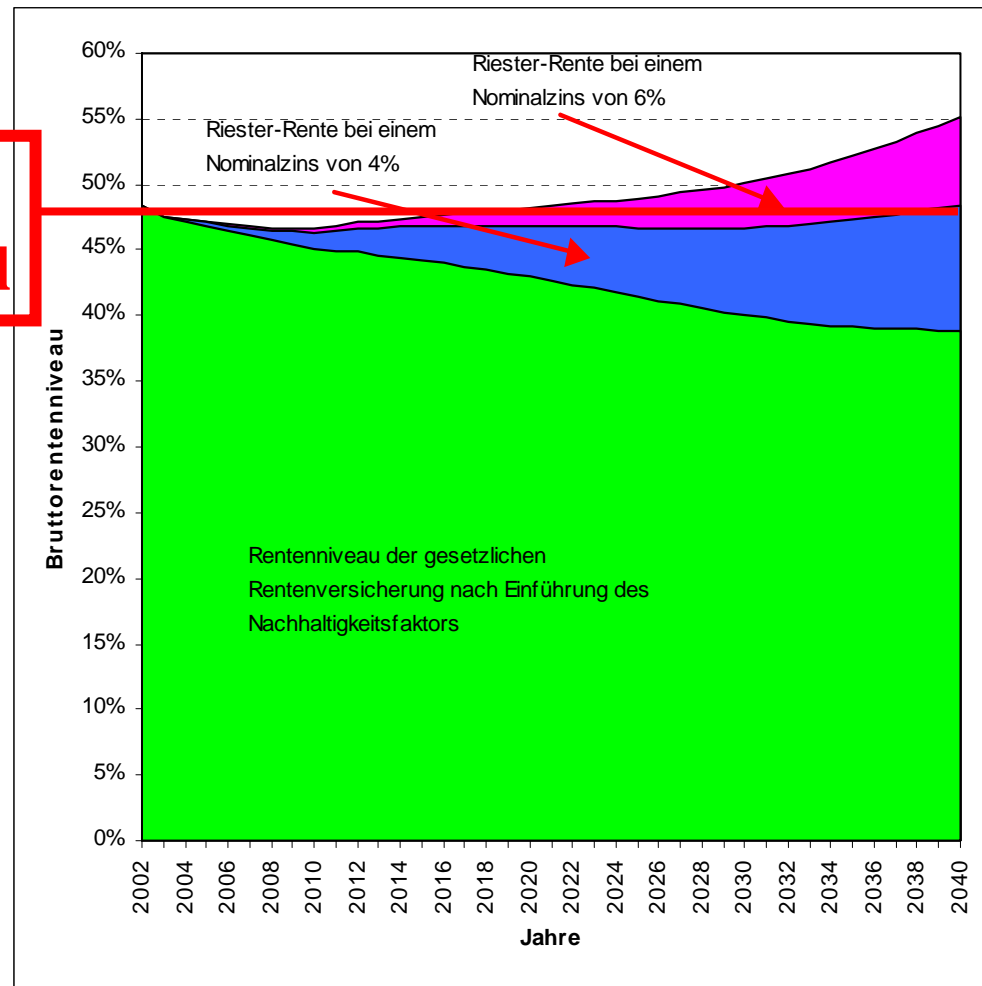
$\Delta \text{ benefits} \sim \text{weighted sum}(\Delta \text{ earnings}, \Delta \text{ system dep ratio})$

2/3 1.5%

1/3 -.3%

Will the new pensions suffice?

**Current
benefit level**



**Funded pillars
2 and/or 3 at a
4% saving rate
(return = 4% / 6%)**

**PAYG pillar 1
reduced by
sustainability
factor**



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Some lessons

- Time line dictated by demography, differs strongly by country
- Same for maneuvering room ("Scylla-Charybdis")
- "Of course" holds only for economists: retirement age, actuarial adjustments: lump of labor fallacy
- Combine long-term transparent benefit reduction schedule with feasible pre-funding schedule
- Implementation problems, but wait and see is not an option: diversification approach in social risk management