

Risk management at PGGM towards optimal control of solvency

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Overview

- Problem
 - Supervision: short term elements
 - Ambition: long-term financing of good pension deal
- Solution
 - Less promises (with same ambition)
 - Rigorous management and control of risk
- Result
 - Solid pension deal
 - Within regulatory framework
 - At minimal cost for beneficiaries

Dutch supervision: focus on short term

- Based on nominal fair value framework
- Not based on going concern
- Minimum funding requirement 105%
 - Lower funding ratio: 3 years to “recover” deficit
- Solvency requirement: 130% (for average fund)
 - 97.5% certainty of solvency in 1 year
 - Lower funding ratio: 15 years to “recover” solvency
- Continuity analysis: ALM study
 - Pension fund’s ability to meet its targets

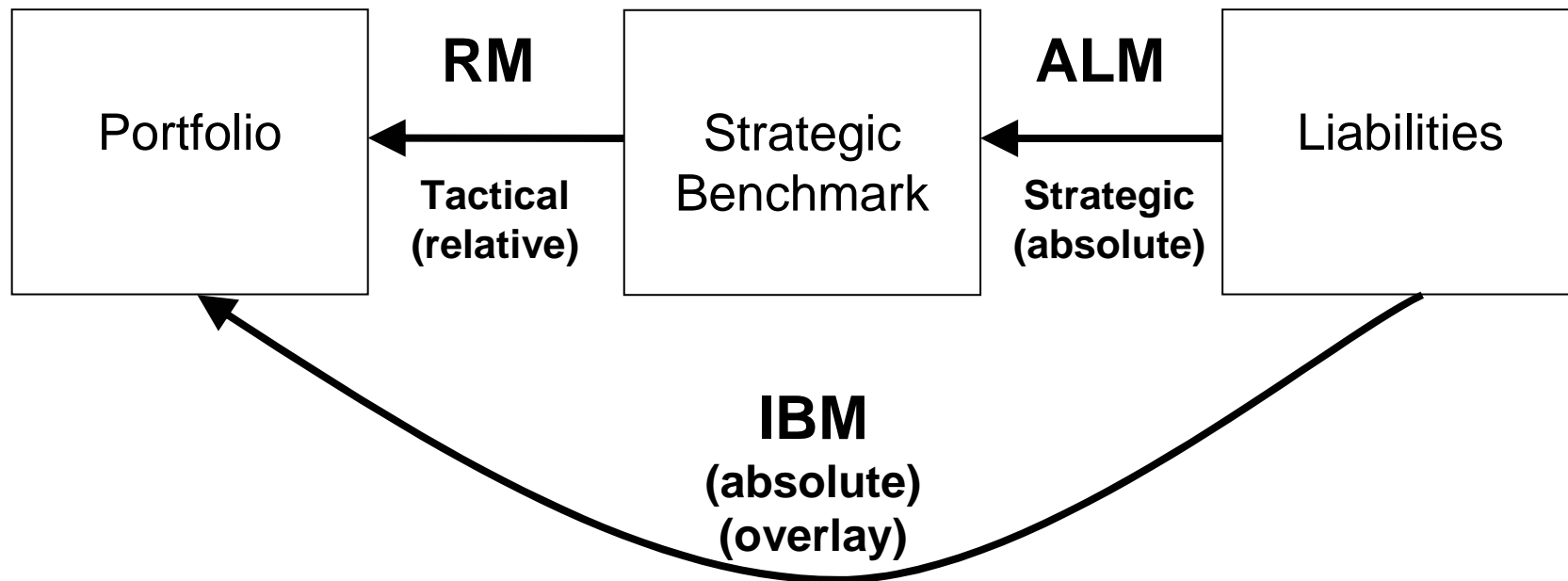
PGGM's ambition

- PGGM targets
 - High indexation
 - Low and stable contributions
 - Low risk
- Prepared for FTK
- Robust for risk scenarios

Managing solvency is important

- Increased focus on risk management
- Funding ratio (nominal benefits) is key indicator
- Different approaches for different purposes:
 - Asset Liability Management: contribution, indexation and investment policy and solvency risk in long run
 - Integral Balance sheet Management: solvency risk in short run
 - Risk Management: tactical investment policy

Different focus at various levels

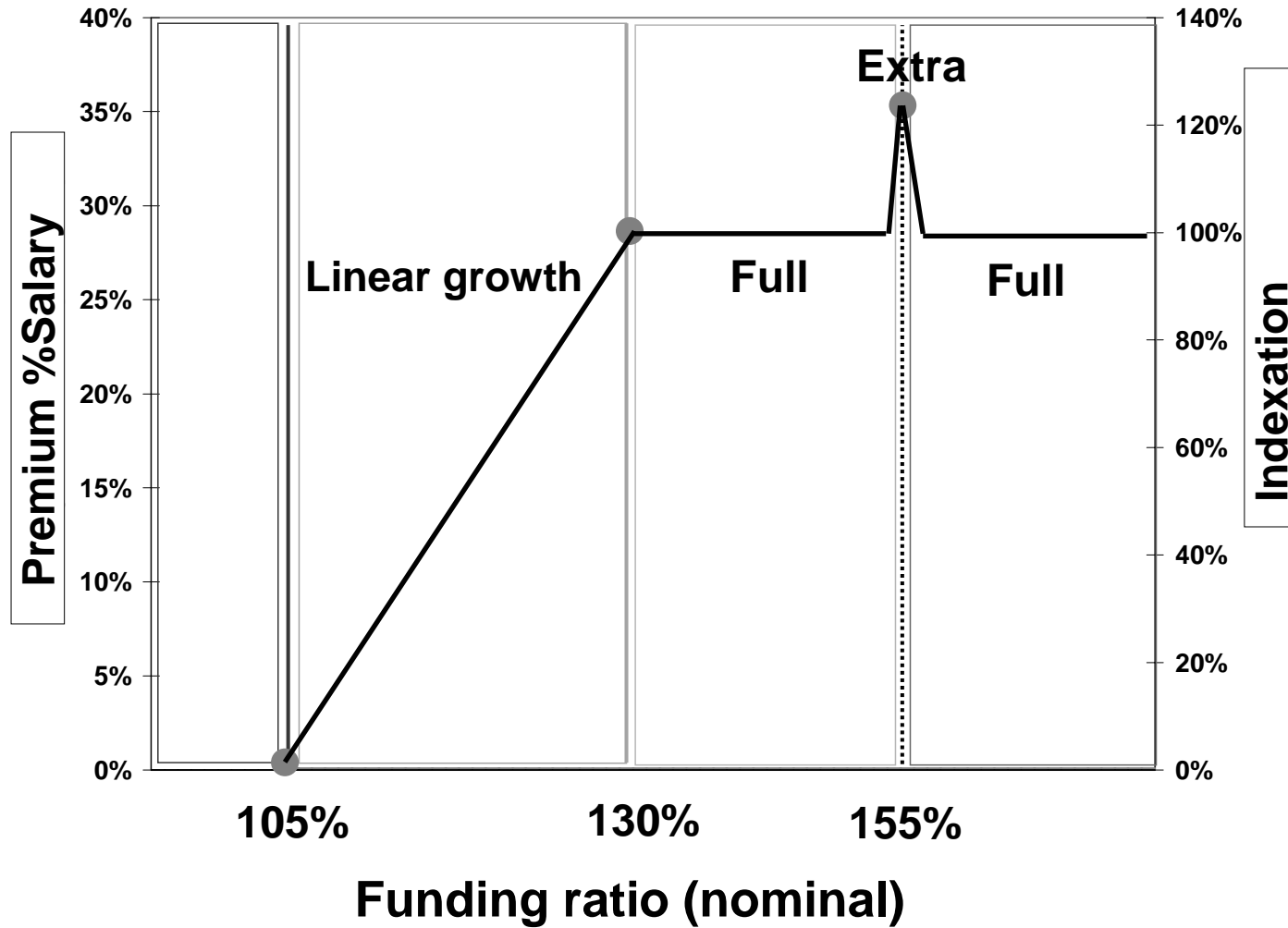


- ALM Asset Liability Management (long term)
- IBM Integral Balance sheet Management (medium term)
- RM Risk Management (short term)

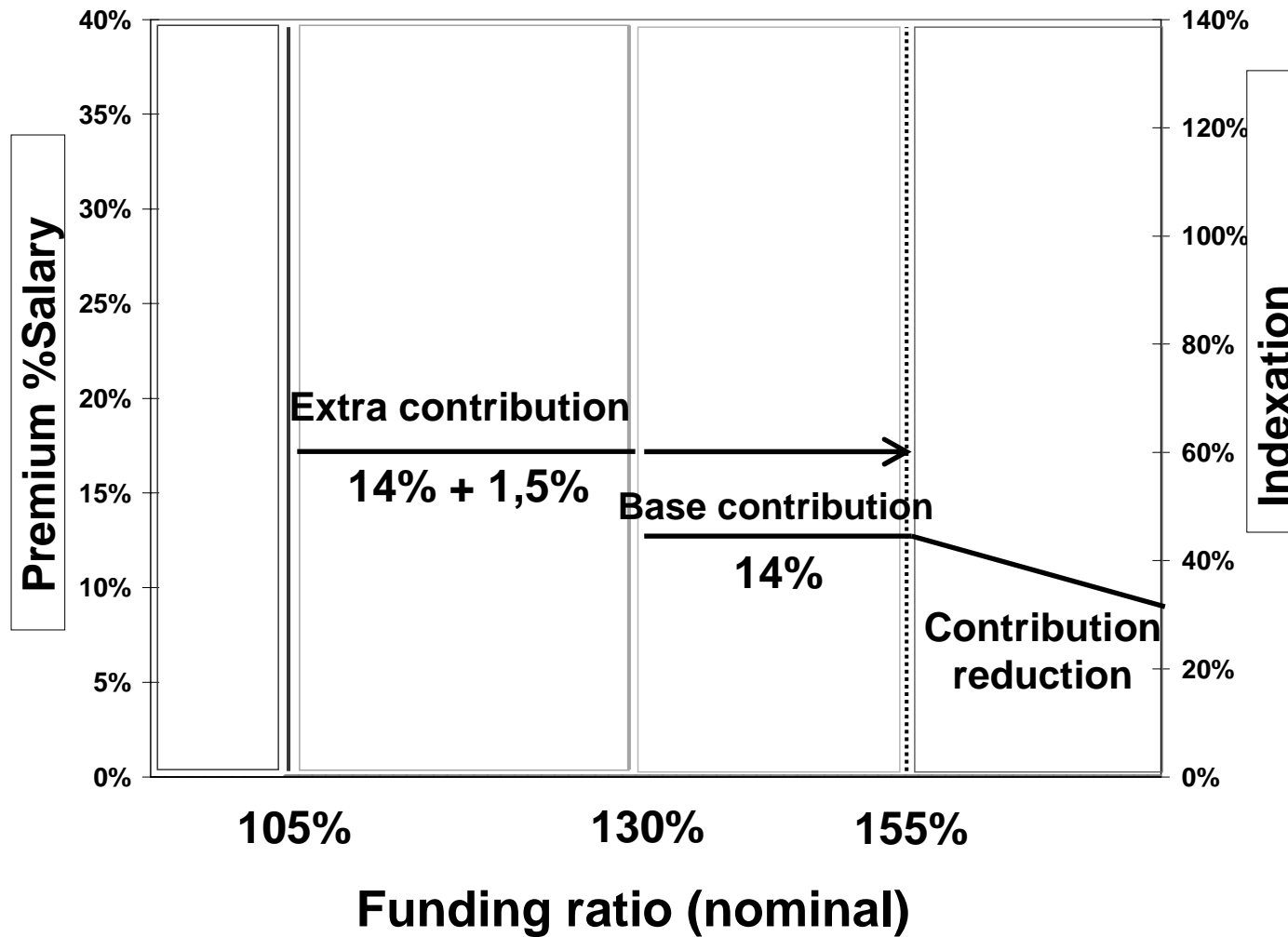
PGGM's robust system

- Average pay DB system
- Conditional indexation: more indexation at higher funding ratios
 - Ambition is full indexation with wages for all members
 - Target is 80% of wage inflation
 - Financed by
 - Contribution (targeting price inflation)
 - Extra return (real wage growth)
- Contribution policy: higher contributions at lower funding ratios

More indexation at higher funding ratio



Higher contribution at lower funding ratio

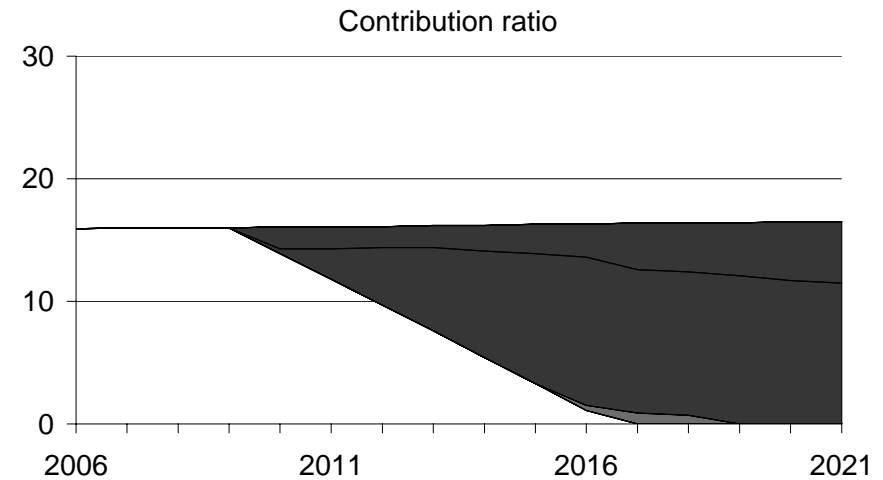
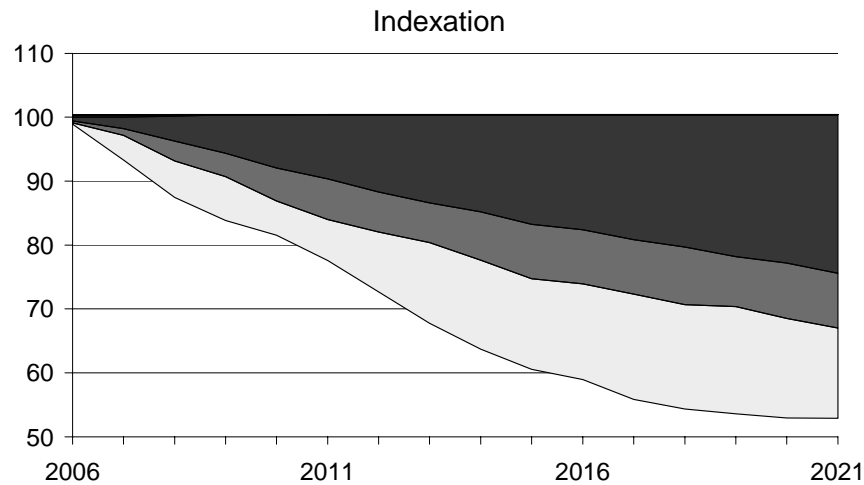
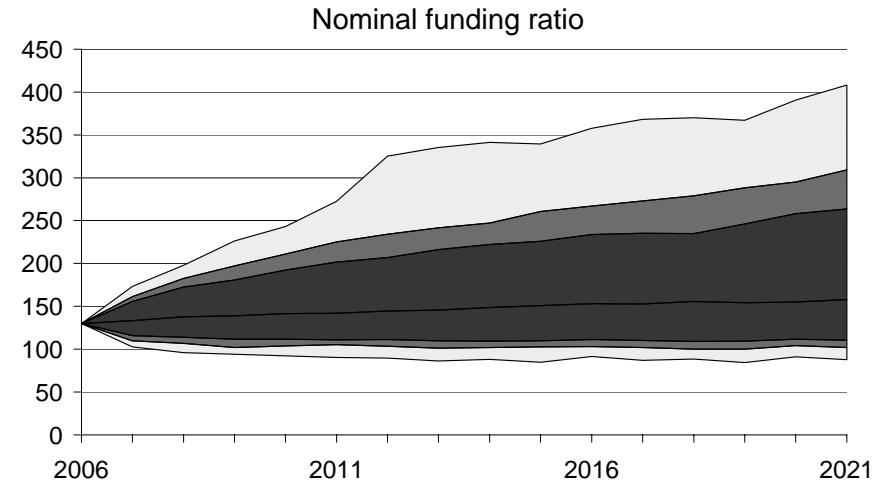


ALM: optimal combination of different angles

- Optimising contribution, indexation and investment policy by using
 - Simulations (Monte Carlo): 15 year horizon
 - Stress scenarios: deterministic
 - Stakeholder analysis (based on fair value)
- ALM-model also used for recovery plans and estimating impact of changes in pension benefits

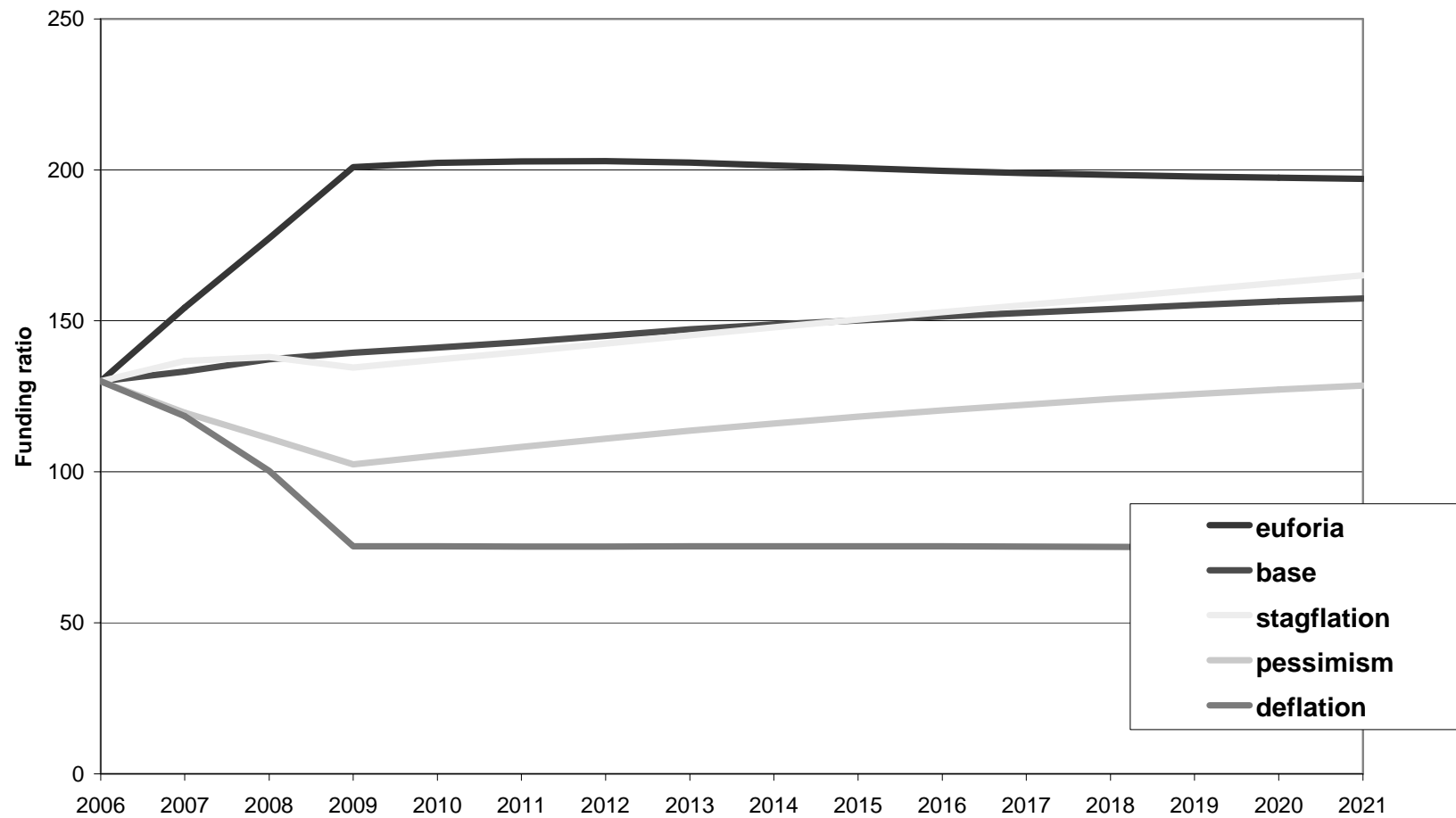
Outcome PGGM's pension deal

Horizon 15 years	
P(FR < 105%)	5.6%
P(FR < 100%)	3.3%
P(FR < 90%)	0.9%
Indexation quality	81%
Avg contribution	12.8%



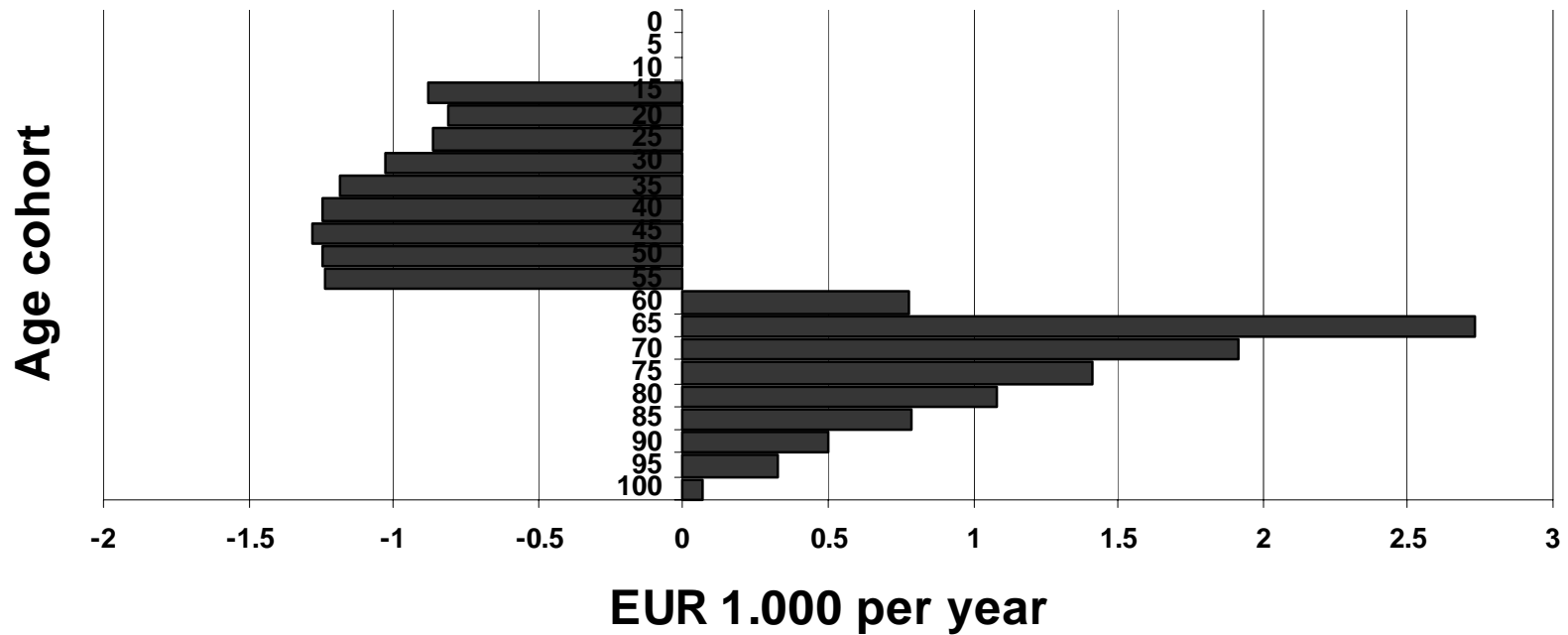
PGGM's stress scenarios

Stresstest (regime analysis)



Stakeholder analysis improves sustainability

Extra transfers due to low funding ratio



Conclusions

- Tension between solvency requirements and ambition
- Ambition realised by risk management
 - DB with policy ladders robust system
 - Risk management very important
 - Focus on simulations, stress scenarios and stakeholders

Thank you for your attention

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