

# A strong second pillar: Towards a sustainable second pillar in the Dutch pension system (Goudswaard report)

Theo Nijman  
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# The three pillars of the Dutch pension system

- First pillar: Collective pension plans, irrespective of the labor history (AOW)
- Second pillar: Mandatory collective labor related pension plans
- Third pillar: Voluntary individual pension plans
- Dutch second pillar pensions are funded. Usually they are “Defined Benefit” and offered through pension funds. For simplicity we focus on that case
- The Dutch three pillar system is one of the leading pension systems world-wide (see Bovenberg and Nijman (2009)), but further evolution seems required

# Sustainability of the second pillar

- A number of developments might affect the sustainability of the second pillar:
  - Increase in life expectancy
  - Aging of the population (ever larger fraction of population is retired)
  - Low interest rates
  - Reduction in expected returns
  - Increasing mobility of workers
  - Currently low funding ratios (105% nominal)
  - Lack of transparency and of understanding that pension promise was uncertain

# Structure of the presentation

- Introduction
- Brief description of the Dutch second pillar
- Need for complete contracts and transparency
- Analysis of the sustainability of the second pillar
- Directions for the future:
  - Reduced ambition levels
  - Reduce level of guarantees (“more risk taking”)
  - New possibilities for risk allocation
    - Dependence on changes in life expectancy
    - Real rather than nominal pension promises
    - Risk allocation over groups of participants

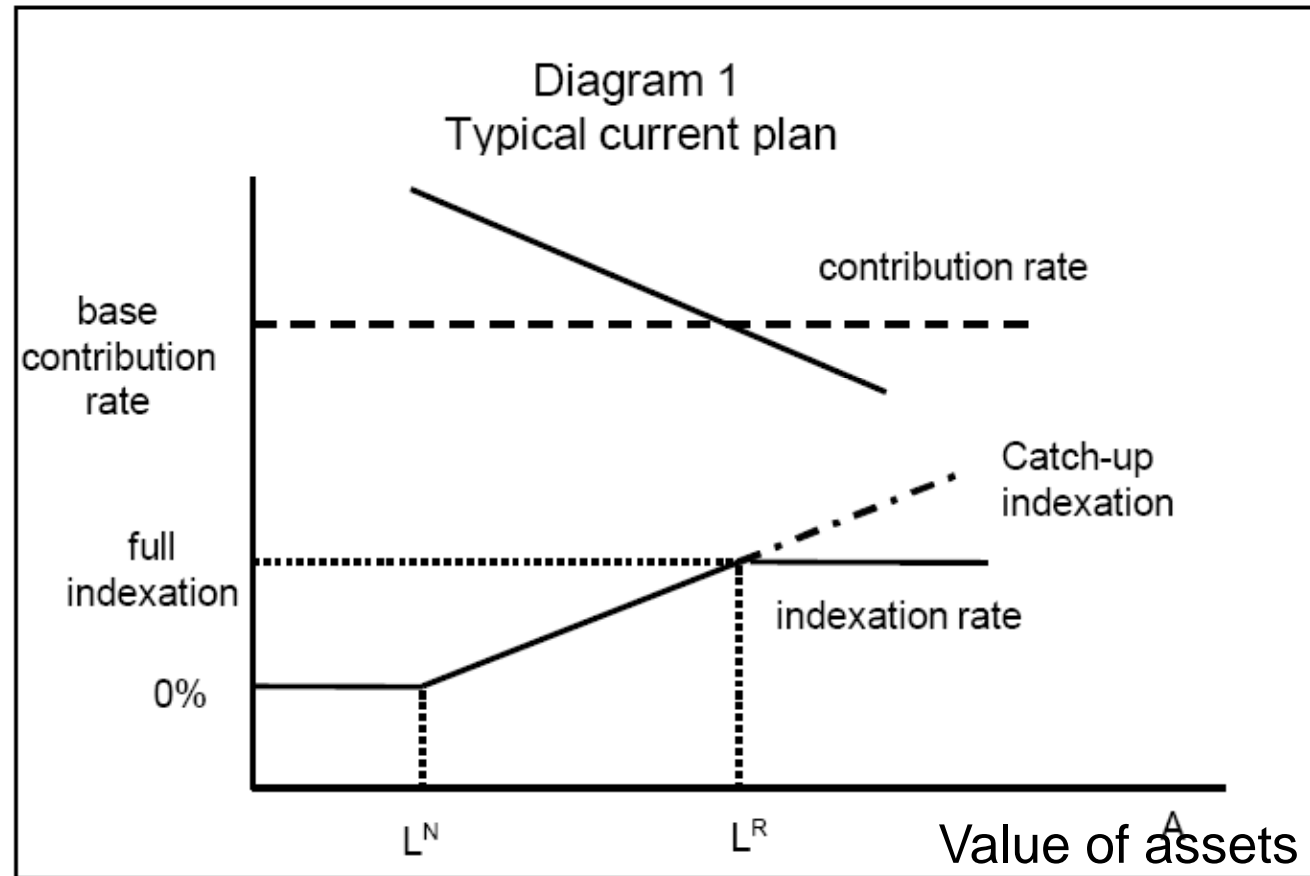
# The Dutch second pillar pension

- “Defined Benefit”:
  - nominal pension promise
  - as of targeted fixed retirement date
  - contribution and accrual rates identical for all participants
- Collective mandatory plan to
  - reduce marketing costs
  - protect against behavioral biases
  - share non-traded risks (e.g. longevity risk, inflation risks)
  - enable risk sharing with non-overlapping generations
- Strict solvency rules: schemes are to be fully funded
- Average pay to avoid value transfer to steep careers
- Risks shared by all participants: conditional indexation

# Conditional indexation and recovery contributions

- The pension promise in the Netherlands consists of two parts:
  - A guaranteed (nominal) pension income as of retirement
  - Compensation of inflation (“indexation”) whenever the value of the assets is adequate relative to the value of the liabilities (“soft rights”)
  - Implicit life cycle element due to horizon for inflation erosion
- Cost effective contribution rates are charged for new entitlements (actuarially fair in the aggregate), however
  - Recovery premiums (intergenerational risk sharing) in case of inadequate funding (too small solvency buffers)
  - Contribution reduction only if all indexation ambitions (including those from earlier years) have been realized

# Policy ladder



$L^R$ : approximately fully funded in real terms;  
 $L^N$ : approximately fully funded in nominal terms

# Complete contracts

- The “soft rights” are an important ingredient of the pension promise, in particular for young participants
- The optimal investment policy for the soft rights differs for different groups of participants
  - Reduction of risk taking is in the interest of the elderly
  - Continuation of risk taking is in the interest of the young
- In a “continuity analysis” the board of the pension fund specifies the intended (dynamic) contribution, indexation and investment strategy
- The “soft rights” are also used as a solvency buffer to insure the nominal obligations of the fund
- The continuity analysis implicitly defines property rights on the buffer

# Complete contracts

- The actions to be taken if the (nominal) funded rate dropped below  $L^N$  (increased above  $L^R$ ) were not specified
- The decision whether or not to “de-risk”, whether or not to increase contributions or to cut benefits had to be taken ex post last year in the recovery plans
- To stimulate ex ante risk allocation the Goudswaard committee (like the Frijns committee) advocates to make the continuity analysis much more binding (complete contract)

# Transparency

- Real pension income was perceived to be guaranteed (until last year)
- Moreover only 12% of the participants in Dutch schemes expects to receive a (total) retirement income of less than 70% of final wage
- This seems over-optimistic due to
  - average wage schemes,
  - lack of full accrual over 40 years,
  - loss of purchasing power due to lack of indexation
- Currently the annual pension information report (UPO) contains projected nominal pension income.
- The Goudswaard committee proposes to add an estimate of the expected real pension income and the purchasing power in a “pessimistic scenario”, e.g. 10% quantile.

# Threats to sustainability of the second pillar

- Increase in life expectancy
- Sizable investment risks present and required but
  - Perception of certainty with participants
  - Future recovery contributions of current workers less effective to absorb risks because of aging
  - Future recovery contributions of firms less attractive because of IFRS
- Current low funded rates require recovery contributions to ensure purchasing power
- Labor mobility increases, actuarially unfair elements in the pension system provide inadequate incentives
- CPB projects an increase in pension contributions over total wages from 13% (2010) to 17% (2025) unless adjustments to the contract parameters or contract design are made

# Increase in life expectancy

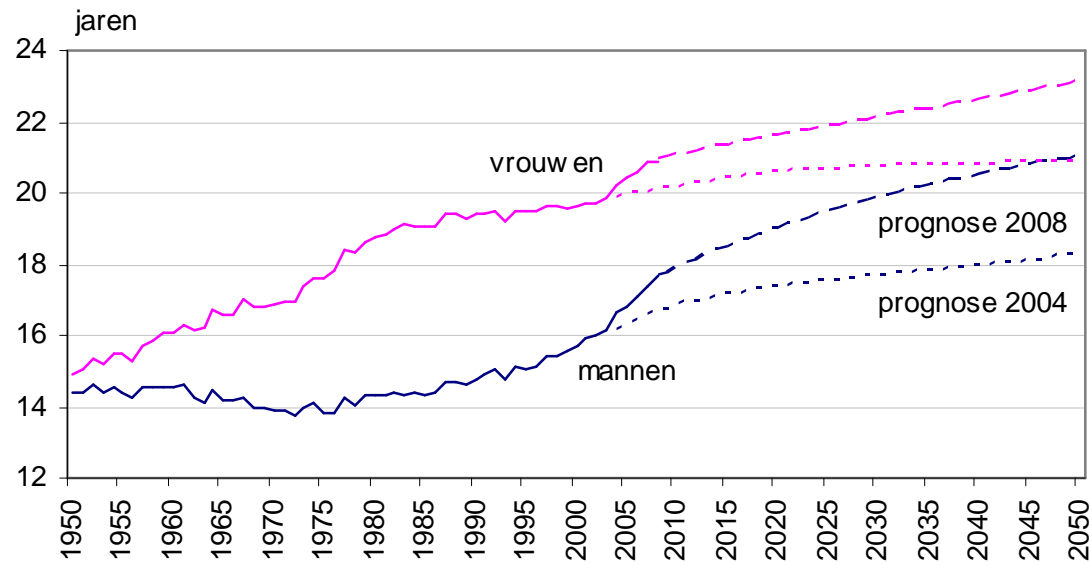


Figure: Life expectancy at the age of 65 (women and men)

The dashed line is the current prognosis

The dotted line is the 2004 prognosis

# Investment risk and return 1980-2008

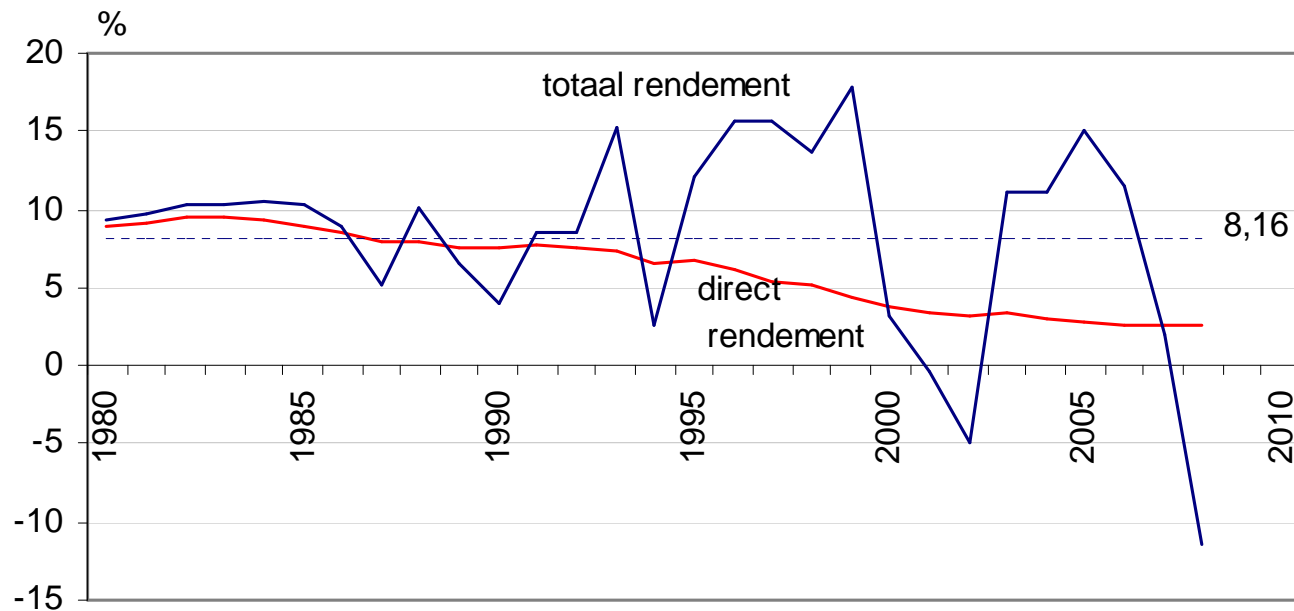


Figure: Investment returns Dutch Pension funds: Total, direct and average returns 1980-2008

Average returns: 1980 – 2008: 8.2%

1980 – 1999: 10.2%

2000 – 2008: 3.8%

# Recovery contributions will be less effective

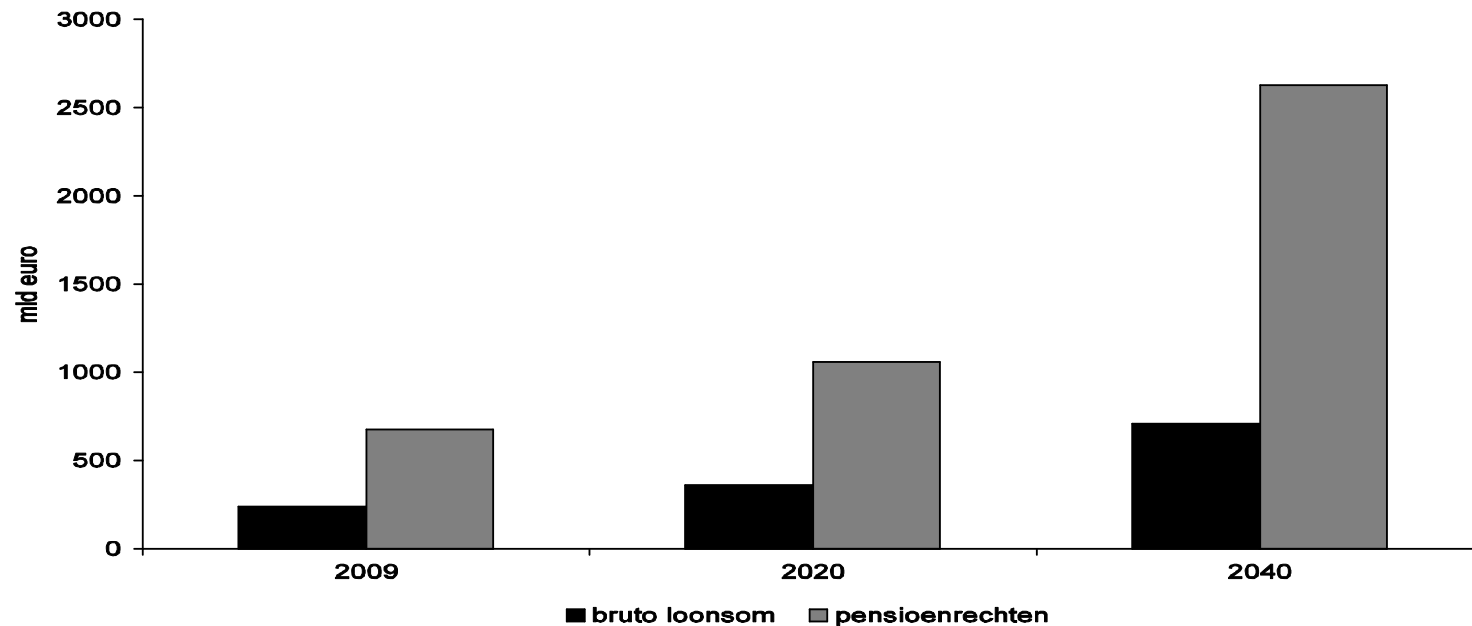


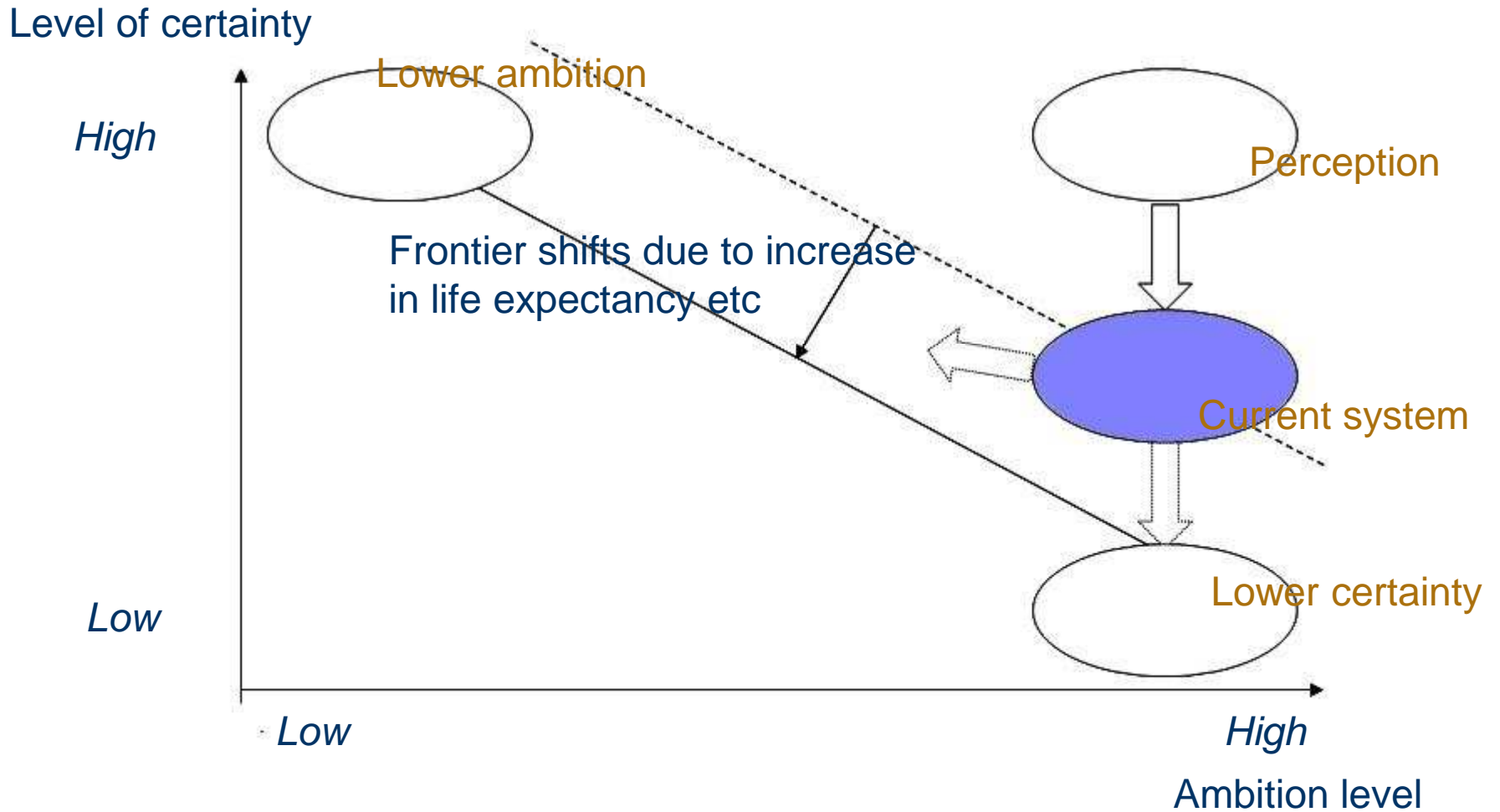
Figure: Projected value of pension liabilities and total wages

Ever larger recovery contributions would be required to balance negative investment returns

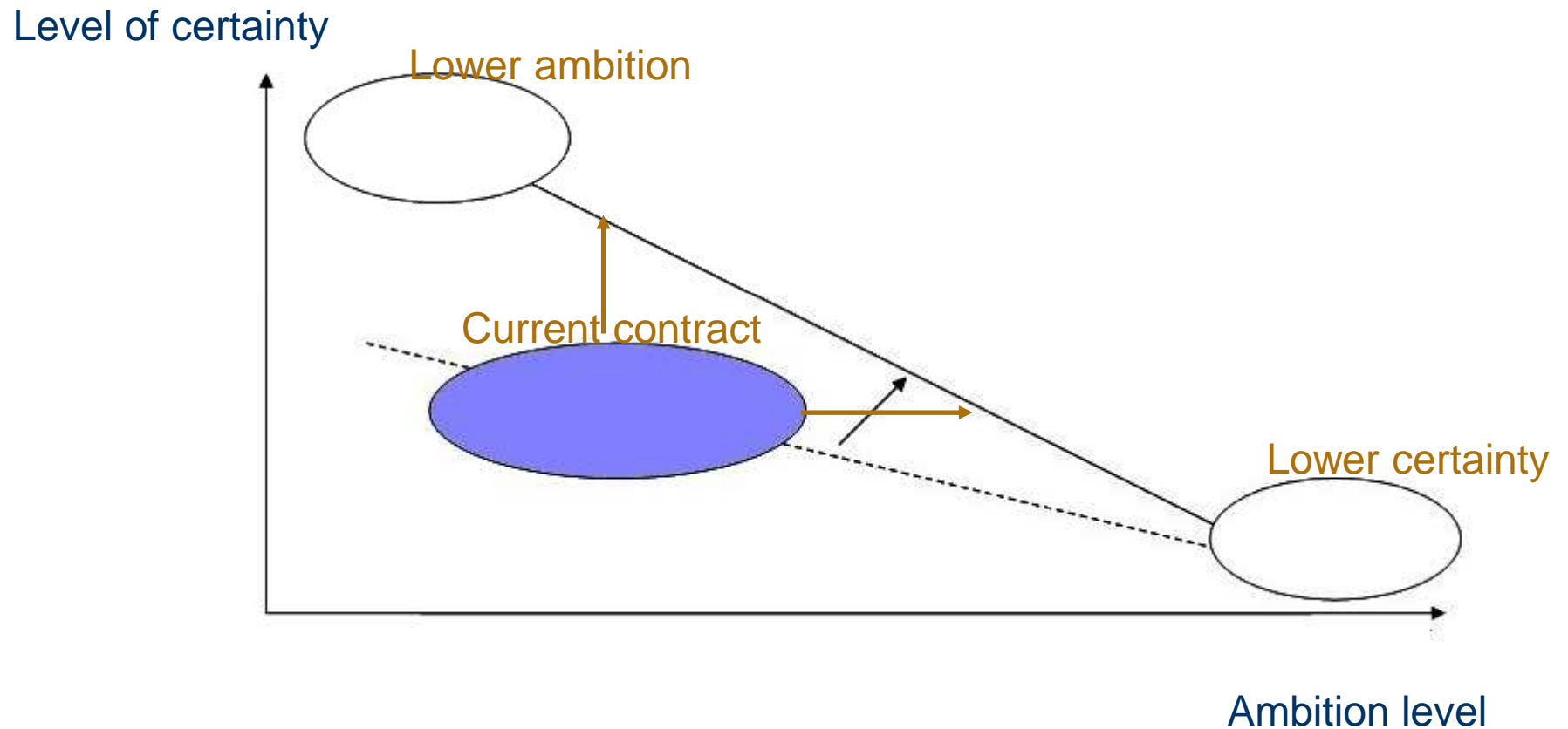
# Directions for the future

- Sustainability of current Dutch second pillar insufficient
- Strengths of the system to be retained: mandatory participation, protection against behavioral biases, low cost level, intergenerational solidarity
- More complete and transparent contracts required
- Possible directions for the future either:
  - Reduced ambition levels
  - Reduced level of guarantees (“more risk taking”)
  - More innovative risk allocation
    - Dependence on changes in life expectancy
    - Real rather than nominal pension promises
    - Risk allocation over groups of participants
  - ❑ Government should reduce current restrictions on choice menu for social partners and enforce complete and transparent pension contracts

# The trade-off between cost, ambition and risk



# Frontier shifts due to improved risk allocation



# Reduction in ambition levels

- The current targeted replacement rate is 70% of final wage or 80-90% of average wage at the age of 65
- Number of active years is increasing, annual accrual has not been adjusted
- Average replacement rate is high compared to other OECD countries
- The average income and wealth of the elderly are adequate and are improving further
- Note though that there is significant heterogeneity in replacement rates: self-employed, divorced participants, immigrants, ..

# Adjustments to increased life expectancy

- One can argue that the ambition of the pension contract increases annually because of increases in life expectancy.
- Changes in life expectancy can be incorporated in two different ways
  - the targeted retirement date is adjusted
  - the targeted income as of a fixed date is adjusted
- The actuarial fair adjustment of retirement income to changes in the retirement date implies that technically the two options are equivalent

# Options to incorporate life expectancy

- *Option 1:* Newly accrued rights generate income as of date which depends on most recent estimate of life expectancy
- *Option 2:* Newly accrued rights generate income as of date which depends on estimate of life expectancy at retirement (like in many OECD countries)
- *Option 3:* Like option 2, but further unexpected improvements in life expectancy also affect current rights of active members
  - Options 2 and 3 allocate longevity risk more to the current active participants who have the risk absorbing capacity. Their active period as well as their retirement period will increase
  - Note: options 2 and 3 require changes in the regulation

# Nominal versus real pension promises

- The current typical pension contract in the Netherlands is based on nominal promises and conditional indexation
- Solvency framework (FTK) focuses on the legal promises, i.e. emphasizes risk reduction if nominal funded rate is low
- Insufficient awareness of long term impact of inflation
  - Frijns committee proposes mandatory reference to real funded rate and real funding rate risk
- One could shift to real promises, but
  - Level of guarantee will be quite low if costs are fixed (will participants understand ?)
  - For fixed ambition substantial risk taking required

# The level of risk taking

- Whether or not nominal or real pension promises are offered substantial risk taking is required
- The cost level can be reduced without affecting the ambition level by taking additional (investment) risks
- This requires
  - more complete contracts
  - more transparencyand is more attractive if more explicit differentiation in risk allocation is possible
- Like in the current case representatives of employers and employees have discretion to adjust the pension promise to societal developments

# Differentiation in risk levels

- The current contract has uniform contribution rates, accrual rates and an overall investment strategy
- Nevertheless there is implicit differentiation in risk levels:
  - Nominal guarantees are less valuable for the young
  - Risk taking is more rewarding for the young
  - CPB calculated that the age group 50-60 is far more effected by the crises than other age groups
- The existing contract implies conflicts of interest between subgroups in the fund (young / old; lower / higher income groups)

# Models for explicit differentiation in risk levels

- Ponds (2008):
  - Extension of conditional indexation to age dependent adjustments for inflation
- Tamerus (2009):
  - Separate contract for active and inactive population. Active population still covers (parts of) solvency risk for the elderly
- Merton-Samuelson (1974) or Teulings–de Vries (2006):
  - Cohort specific funds
- Life cycle products

# Models for explicit differentiation in risk levels

Proposed contract:

- Contributions partially buy hard rights, partially soft rights (dependent e.g. on age, income,..)
- Gradual conversion of “soft” to “hard” rights. Initially primarily risk taking investments, conversion to deferred nominal or real annuities
  - “Soft” rights cover solvency risks for “hard” rights
  - Retain some discretion for social partners
- Such a contract reduces conflict of interest between groups (e.g. young participant in “grey fund”)
- The proposed contracts require adjustments in Dutch law and have to be checked with European law

# Individual ownership of the buffer

- The “hard rights” (nominal guarantees) are currently individualized, the “soft rights” (buffer) are not
- Arguments in favor of individual ownership in buffer:
  - Better defined property rights
  - Opportunity to choose risk level individually
  - Additional contributions are personalized and e.g. only for current workers
  - Portability of rights is improved (currently value of guaranteed rights only)
- *Note:* like now buffer covers solvency risks and can be affected by changes in contract
- Examples of counter arguments:
  - More complicated contract to explain
  - Which groups can be convinced to take risk ?

# Concluding remarks

- The purchasing power of the pension income is the adequate (DB) perspective
- Substantial risk taking is inevitable for attractive pension contracts
- More complete and transparent contracts are required
- Finding a (new) balance between cost, ambition and certainty is inevitable
- Unless the cost level is allowed to increase there are three options:
  - pension ambitions are to be reduced,
  - more (investment) risk is to be taken, or
  - innovative forms of risk sharing are to be implemented
- The Goudswaard report proposes to open opportunities for innovative contracts, in particular to share longevity risk