Risk based supervision in a defined benefit orientated pension system

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The Netherlands' approach

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April, 2008

World Bank - Contractual Savings Conference

Agenda

- Objectives of risk based supervision
- The financial assessment framework
- Generic risk-oriented supervisory approach

Objectives of risk based supervision

- Increase awareness of current financial position
- Tailor solvency requirements to firm specific risk profile
- Encourage professional risk management
- Stimulate early intervention

How to safeguard pension liabilities in a defined benefit environment

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- Components of technical provisions that can create prudence
  - Discount rate, mortality table, reserving method, indexation, expenses
- Additional security mechanisms
  - Regulatory own funds and additional solvency buffers
  - Subordinated loans
  - Sponsor commitment and increases to contractual premiums/sponsor contributions
  - Guarantee funds
  - Reduction of future conditional inflation
  - Mechanisms to reduce accrued pension rights

Key features of the Dutch approach

- Full funding requirement
- Pension contributions must be placed outside sponsoring company in a separate special purpose vehicle
- Risk based solvency requirements
- Strict rules for contribution holidays
- Prudent person approach
  - No investment restrictions
  - Except for investments in the sponsoring company

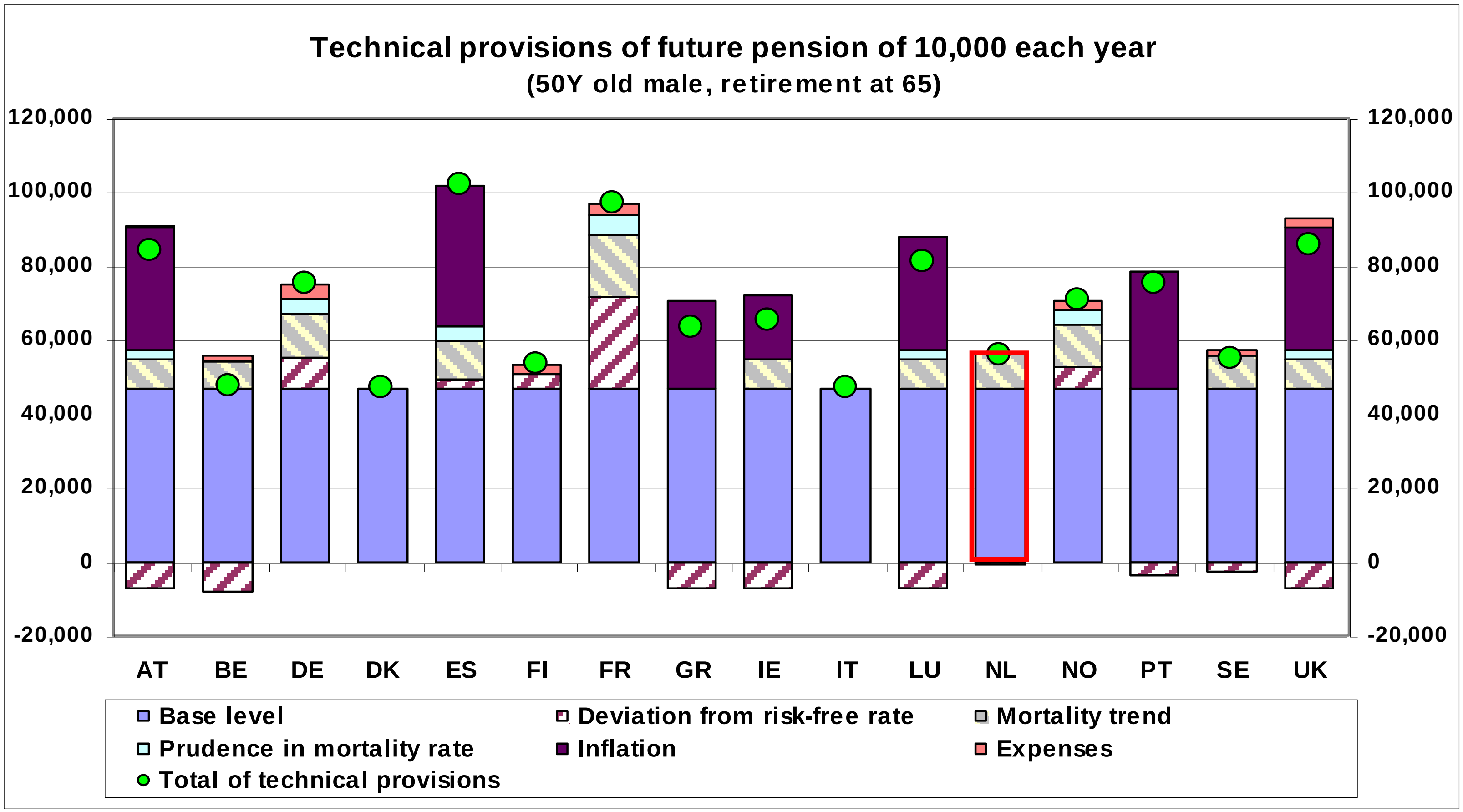
Why full funding is important

- Underfunding has a price
  - High and volatile recovery costs: prevention cheaper than cure
  - Uncertainty reduces consumption and increases savings
- Funding contributes to confidence in pensions
  - Employees will be more confident that their pension will be there when they retire
  - Influences labor supply: facilitates retirement planning
  - Encourages labour mobility: facilitates transfer of accrued rights
- Funding is a hedge for ageing society

The Dutch risk based system: the Financial Assessment Framework

- Key features
  - Valuation: both assets and liabilities at marked-to-market
  - Solvency test for short term capital adequacy (1 year time horizon)
  - Continuity analysis for long term capital adequacy (15 year time horizon)

Valuation differences across European countries



Aim and characteristics of solvency test

- A pension fund must retain additional capital over the technical provision such that the probability of under funding in 1 year from now is below 2.5%
- Non matching position requires higher solvency level
- For a typical pension fund the required funding ratio is 127%
  - Equity/bond allocation is 50/50
  - The duration gap between liabilities and fixed income assets is 11 year
  - If the duration gap is reduced the required funding ratio is lower

Possible funding ratios
(regulatory intervention levels)

Contribution reduction possible

Level needed to fulfill indexation promises

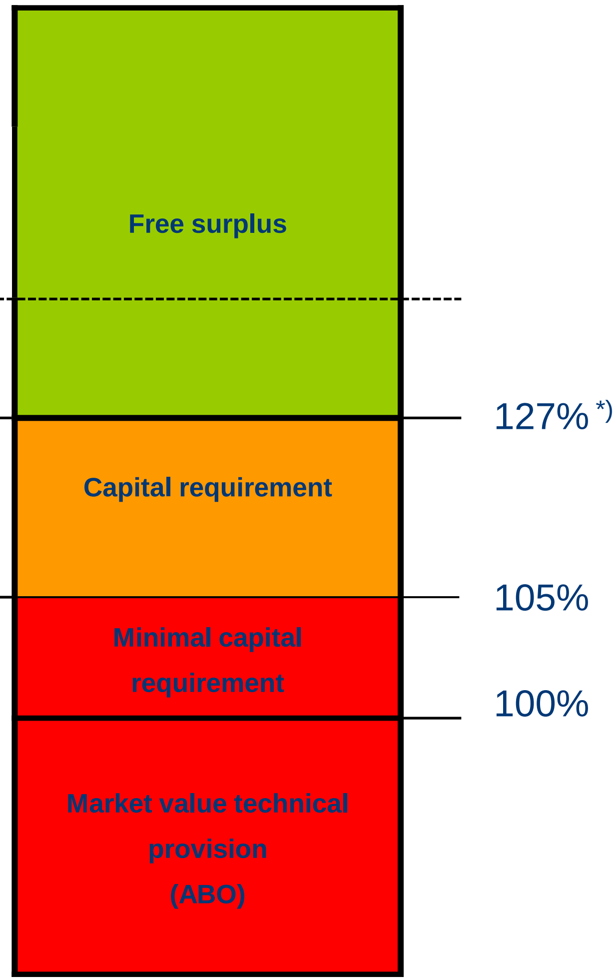
Solvency deficit

- Max recovery period 15 years

*) for a typical pension fund

Funding deficit

-Max recovery period 3 year

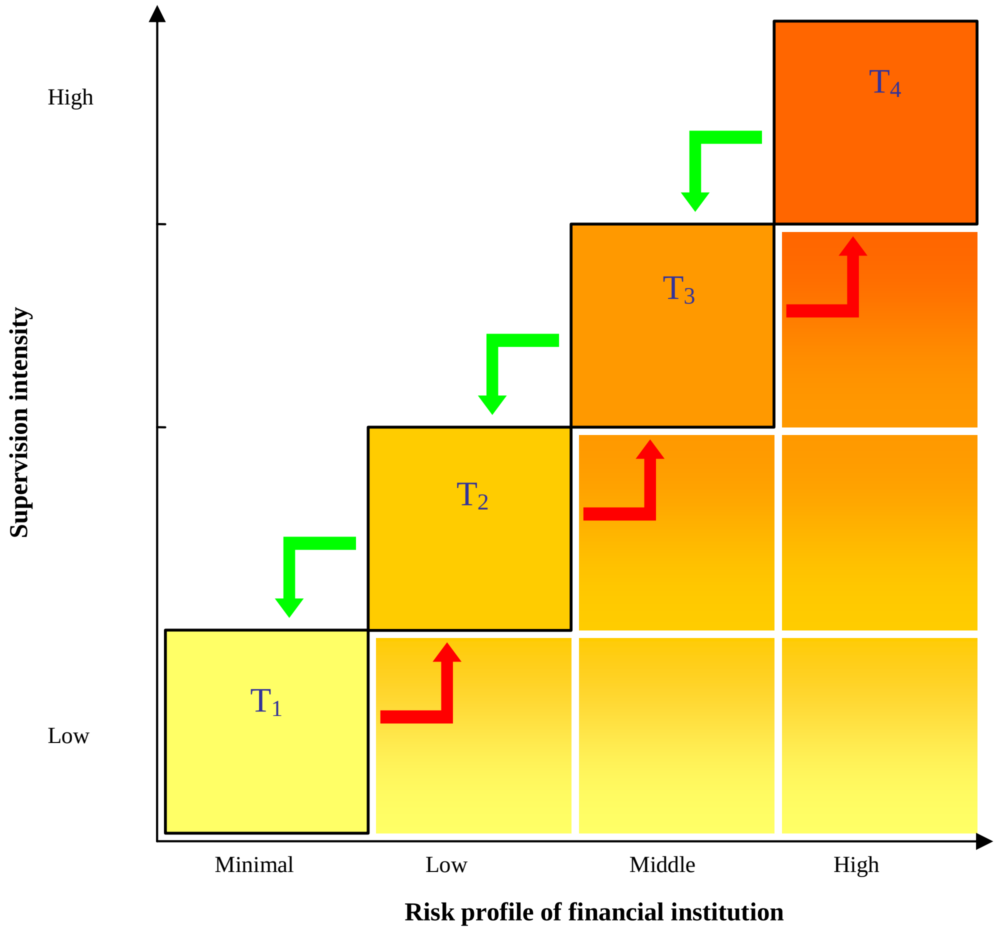


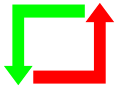
Continuity analysis

- Stochastic evolution of funding position
  - Shows possible fluctuations in the long term financial position
  - Based on assumptions about investment returns, (co)variances, inflation, longevity risk, etc

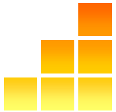
- Aim of the continuity analysis
  - Early identification of imbalances
  - Better insight into the strength of adjustment instruments
  - Realistic expectations about indexation

Generic risk-oriented supervisory approach





Adjustments for individual institutions on basis of individual risk analysis or encountered deficiencies.



Accumulation of supervision activities and used instruments as intensity increases.

Supervisory menus

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T_4	**High: as in T_3, plus:** • Higher frequency of policy meetings, also at staff level • Assessment of the *operation* of management processes and measures
T_3	**Medium: as in T_2, plus:** • Assessment of *set-up* and *availability* of management processes and measures • Assessment of internal management information • Policy meetings at board level (including agreements about addressing points of improvement, if applicable) • Annual meeting with internal auditor, internal controller, actuary • On-site examination
T_2	**Low: as in T_1, plus:** • Periodical on-site meeting with day-to-day policy maker • The granting of authorizations and performance of fit and proper tests • Fit and proper tests in the event of board changes and incidents
T_1	**Minimum:** • Electronic solvency and management reporting by institutions • Automated verification of key data reported Reports are (partly) certified by auditors and/or actuaries • Action by the supervisor prompted by early warning signal • Fit and proper tests for managers • Notification duty of institutions in the event of a violation of criteria • Inspection by random checks and thematic examination

Key developments since the introduction of risk based supervision

- Asset allocations have roughly remained unchanged, with two exceptions

- Pension funds have reduced their asset – liability risk
  - Through long term bonds, SWAPS, Swaptions
  - Inflation linked bonds

- Pension funds have used the available risk budget to increase the allocation to alternatives
  - Private equity, hedge funds, commodities

Conclusions

- Adequate capital funding and proper risk management is essential for a financial institution

- Risk based supervision strengthens sustainability of defined benefit orientated pension systems

- Supervisory intensity depends on risk profile of financial institution