Actuarial Methods in the EU

WWW.WATSONWYATT.COM

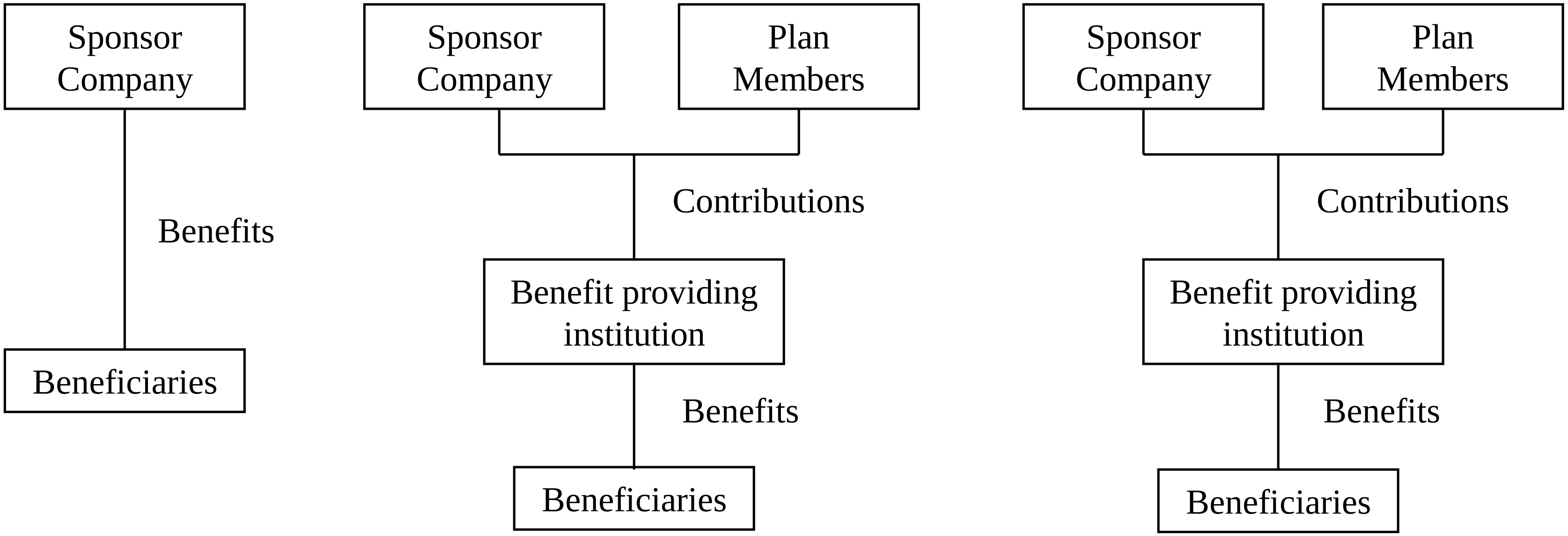
Watson Wyatt Worldwide

Format

- Commentary and overview of retirement benefits and funding vehicles, actuarial methods and assumptions
- Country by country description
- Definition of actuarial methods

Pension plan financing

Direct Pension Promise (internal financing) | **External Sponsored Institution** | **Insurance**



Examples

Direct Pension Promise	External Sponsored Institution	Insurance
Germany	**United Kingdom**	**Denmark**
Sweden	**Netherlands**	**Belgium**
		Netherlands

Use of pension funds as a primary vehicle

- UK
- Ireland
- Netherlands
- Finland
- Belgium
- Portugal
- Spain
- Austria
- Switzerland
- Cyprus
- Iceland

Pension funds sometimes used

- Germany
- Luxembourg
- Sweden

Use of insurance contracts as a primary vehicle

- Netherlands
- Switzerland
- Ireland
- Germany
- Belgium
- Spain

Typical actuarial calculations

- Calculation of past service funding position
- Calculation of cost and contributions
- Analysis of demographic and economic experience
- Calculation of early retirement factors
- Calculation of commutation factors
- Asset/Liability modelling

The development of accounting standards

- 10 years ago - only SSA24??
- Now - currently IAS19 gaining wide recognition and use
- Expanded use of US GAAP by European companies listed on the New York Stock Exchange
- Further development of country specific accounting standards, for example, RJ271 in the Netherlands and Swedish accounting standards
- Replacement of SSAP24 by FRS17

Overall trend of accounting standards

- Move to market based approach for valuing assets
- Move to market related discount rate that reflects long-term, high quality corporate bond yields
- Move to straight line approach for amortisation of gains and losses
- Move to Projected Unit Credit Method
- Move to more complete actuarial assumptions sets with each assumption specified individually rather than implicitly through the use of a net discount rate

Comparison of pension accounting standards

	UK (current)	UK (new)	International	US
Accounting Standard	**SSAP24**	**FRS17**	**IAS19**	**FAS87, FAS88, FAS106, FAS132**
General Approach	▪ Profit and loss driven ▪ Stable regular cost with smoothing ▪ Gradual recognition of other items	▪ Balance sheet driven ▪ Market-based measurement ▪ No smoothing ▪ No spreading	▪ Balance sheet driven ▪ Market-based measurement ▪ More emphasis than FAS87 on immediate recognition and less smoothing	▪ Balance sheet driven ▪ Market-based measurement ▪ Some smoothing allowed ▪ Gradual recognition of some items
Ownership of Assumptions	Actuary	Employer on actuary's advice	Employer (actuarial advice recommended)	Employer
Actuarial Method	Unspecified	Projected Unit	Projected Unit	Projected Unit

Most commonly used actuarial funding methods

- *Projected Unit Credit Method* - Belgium, Cyprus, Germany (commercial accounting), Ireland, Netherlands (commercial accounting), Spain and United Kingdom
- *Current Unit Method* - Finland, Netherlands, Norway, Switzerland
- *Attained Age Method* - Austria, Germany (infrequent), Ireland (infrequent)
- *Entry Age Method*-Germany and Austria (Infrequent)

Factors affecting choice of method

- Tax restrictions eg Germany, maximum funding in Netherlands
- Supervisory minimum funding levels eg Netherlands, Belgium, UK
- Accounting standards eg FRS17, IAS19, FAS87, local accounting rules
- Past custom and practice

Valuation of assets

- Market value - Austria, Belgium, Netherlands (some funds), Norway (accounting purposes), Portugal, Spain, UK
- Discounted income value - Cyprus, Ireland, UK (use is generally declining)
- Average market value - Cyprus, Ireland, UK
- Book value - Denmark, Finland, Germany

Economic assumptions

- Single defined net discount rate used eg Germany, Netherlands, Sweden, Finland, Switzerland
- Full set of assumptions applied eg Belgium, Cyprus, Ireland, UK and Spain plus applications of US GAAP and IAS19

Example single discount rates

- Austria - 6.0% for book reserve tax calculations
- Finland - 3.5% to 4.25% for pension funds
- Germany - 6.0% for book reserve calculations
- Netherlands - 4.0%
- Slovenia - 4.0%
- Norway - 3.0% or 4.0%
- Sweden - 3.75%
- Switzerland - 4.0%

Demographic assumptions

- Experience ranges from full complete set of demographic assumptions to considering mortality and retirement only
- Experience varies from using standard tables specified in regulations to complete freedom of choice for the actuary (eg UK/Ireland)
- In most countries standard mortality tables developed either through population or other censuses are used

Conclusions

- Different actuarial funding methods
- Different approaches to setting actuarial assumptions
- Different assumptions used
- Different approaches to valuation of assets
- Different approaches to setting demographic assumptions

Conclusions

- **Being fully funded under the new EU directive on pensions will mean very different things in different countries**
- **Potentially substantial scope for regulatory arbitrage with regard to the location of any pan-european pension fund**
- **Possible need for more convergence of opinion between actuaries across Europe if we are to support move to more European integration with regard to the funding and accounting of pension plans**