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EUROPEAN INSURANCE
AND OCCUPATIONAL PENSIONS AUTHORITY

First EU Stress Test for Occupational Pensions

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Daniel Perez

OBJECTIVES OF THE EXERCISE



- ✓ To **produce a comprehensive picture** of the heterogeneous European occupational pensions landscape.
- ✓ To **test resilience** of defined benefits (DB) and hybrid pension schemes against adverse market scenarios and increased life expectancy.
- ✓ To **identify potential vulnerabilities** of defined contribution (DC) schemes.
- ✓ To reveal areas that require **further supervisory focus**.

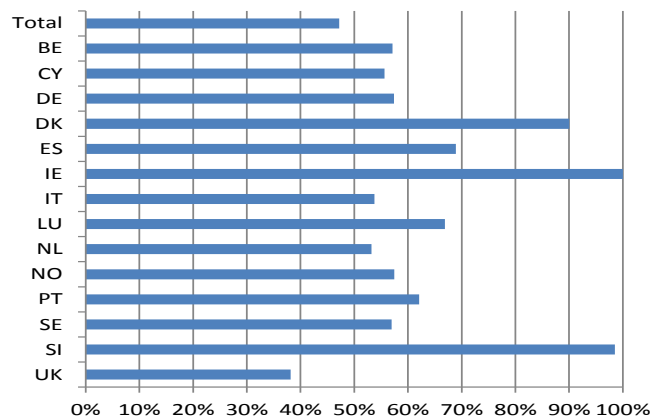
*What **is not the aim** of EIOPA stress test?*

- ✓ It is **not** a pass-or-fail exercise for IORPs
- ✓ It is **not** a repair exercise

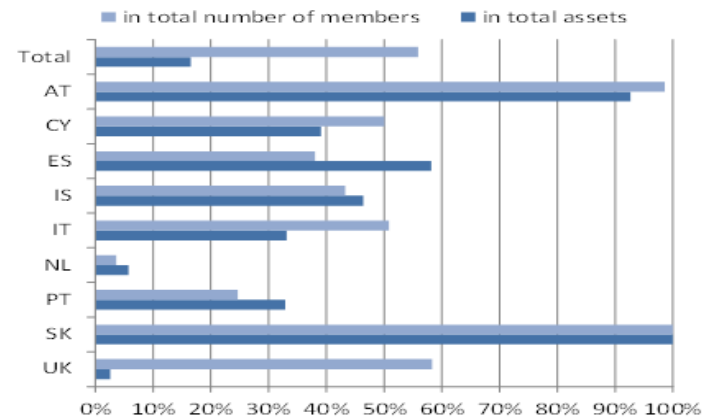
European Economic Area countries with material IORP sectors that took part in the exercise: 17 countries in total with a threshold for participation over EUR 500 million in assets

Defined Benefit and hybrid schemes	140 IORPs	Over 50% of total assets in almost each country
Defined Contribution schemes	64 IORPs	Over 50% of total assets or number of members in almost each country

Market coverage for DB/hybrid schemes (in % of total assets of



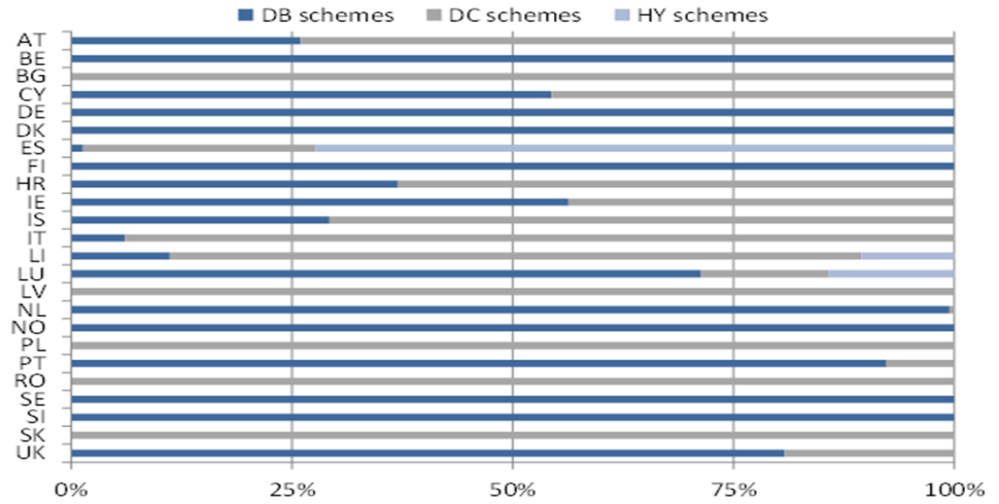
Market coverage for DC schemes (in % of total assets and total



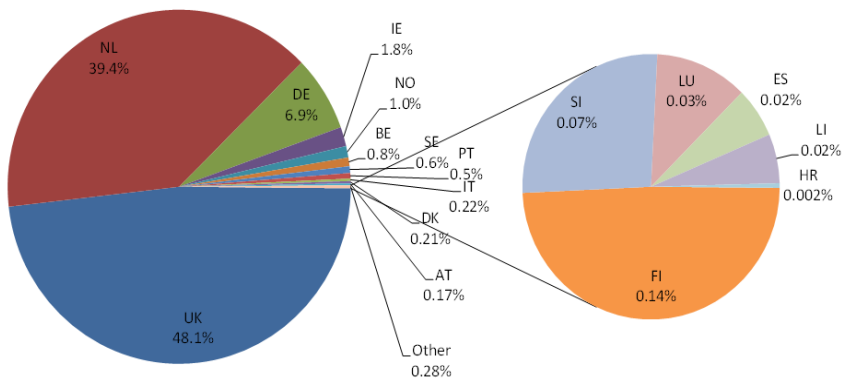
European IORPs Sector



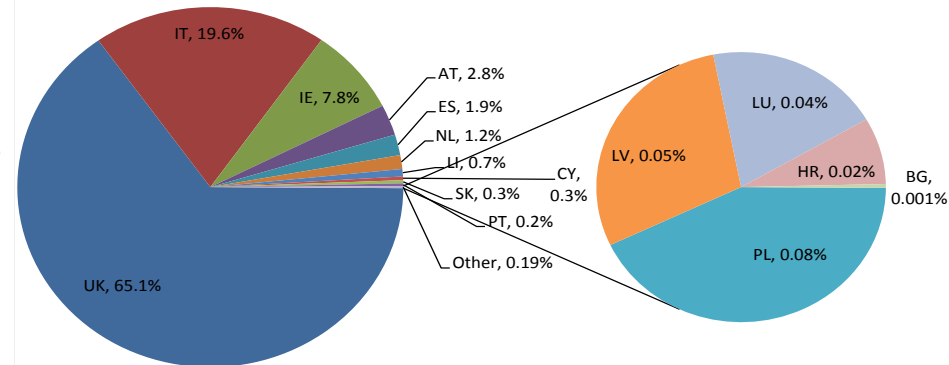
With assets under management of EUR 2.9trn, DB and Hybrid IORPs dominate the European occupational pension market (EUR 3.5trn)



Distribution of Assets in the European DB-HY sector



Distribution of Assets in the European DC sector



1. Reference date: 31 December 2014

2. Twofold assessment:

- ✓ **National Balance Sheet** - Mixture of heterogeneous approaches to value assets and liabilities, usually not market-consistent
- ✓ **EIOPA Common Methodology** – Market consistent valuation, in particular for liabilities uses realistic assumptions and market risk-free rate for discounting

3. Pre-stress scenario: situation of DB/Hybrid and DC pension schemes under the macroeconomic environment at the reference date (i.e. low interest rates and challenging demographic evolution)

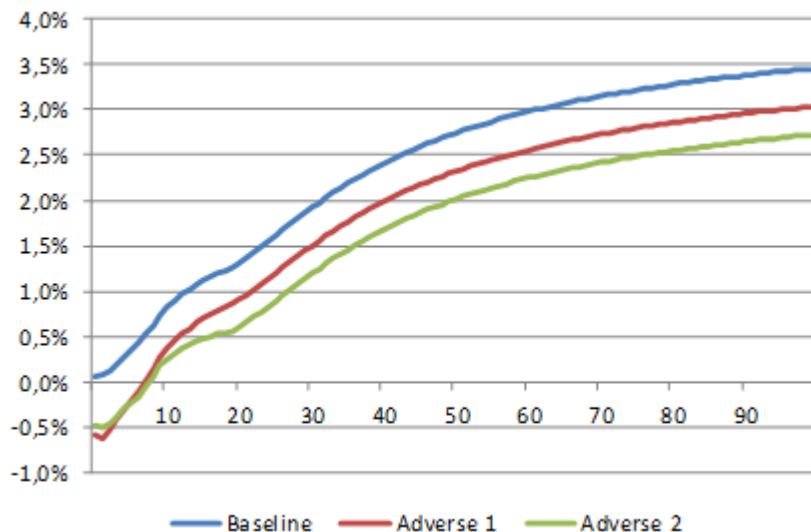
Module	Elements
DB/Hybrid schemes	<ul style="list-style-type: none"> • Adverse market scenario 1 – drop in assets prices (more severe than in scenario 2) and a decrease in interest rates and a decrease in inflation rates • Adverse market scenario 2 – drop in asset prices, drop in interest rates (more severe than in scenario 1) and an increase in inflation rates • 1 increased longevity scenario
DC satellite: differentiated impacts on the income of plan members which are 35, 20 and 5 years before the expected retirement date	<ul style="list-style-type: none"> • 2 Asset price shock scenarios (identical to adverse market scenarios 1 and 2 for DB/Hybrid schemes) • 2 low return scenarios • 1 increased longevity scenario (identical to longevity for DB/Hybrid schemes)

Summary of scenarios DB / Hybrid

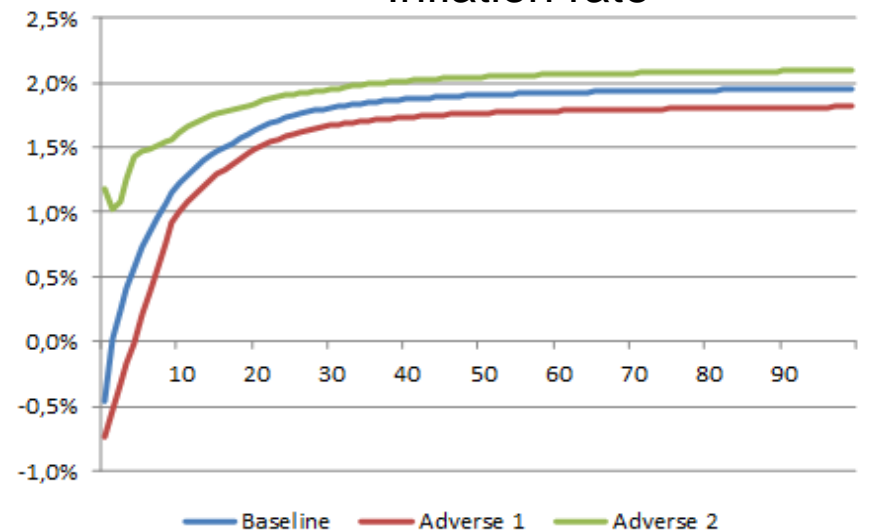
Main stress impacts in adverse market and longevity scenarios

	Adverse market 1	Adverse market 2	Longevity
EU property (price downward shock)	-55%	-36%	-
EU stock prices (price downward shock)	-45%	-33%	-
EU government bonds (spread widening)	120 bps	67 bps	-
Corporate bonds (spread widening)	120 bps	204 bps	-
Euro-dollar exchange rate	+20%	-2%	-
Mortality rates (permanent decrease)	-	-	- 20%

Interest rate



Inflation rate



RESULTS UNDER DIFFERENT SCENARIOS (Excess of assets over liabilities)



Scenario	NBS	EIOPA Common methodology*
DB/Hybrid pre-stress	-78 bn EUR	- 428 bn EUR
DB/Hybrid Market Adverse 1	- 373 bn EUR	- 755 bn EUR
DB/Hybrid Market Adverse 2	- 346 bn EUR	- 773 bn EUR
DB/Hybrid Longevity	- 164 bn EUR	- 526 bn EUR

Important elements to consider:

- ✓ Liabilities have a very **long-term nature**
- ✓ Regulatory regimes usually include substantial **recovery periods**
- ✓ Future gaps can usually be covered by **sponsor's contributions** and/or **benefit adjustment** mechanisms

* In this case excluding benefit reductions, sponsor support and PPS

1. **IORPs** are relatively **more resilient to the permanent decrease of 20% in mortality rates** than to market adverse scenarios (both under NBS and Common methodology assessment).
2. Under NBS assessment, **IORPs appear to be more vulnerable to a severe drop in assets prices** (adverse market scenario 1).
3. Under the Common methodology, **IORPs appear to be more sensitive to an abrupt drop in interest rates and an increase of inflation rates** (adverse market scenario 2).
4. Need to **further analyse** how prolonged adverse market conditions will affect the **sponsors' behaviour** and what can be the consequences for **financial stability** and the **real economy**.

Summary of scenarios tested in DC satellite module



- **Five scenarios**

- ✓ **Two shock scenarios** (identical to DB/Hybrid adverse market scenarios 1 and 2)
- ✓ **Two low return scenarios***
- ✓ **One longevity scenario** (identical to DB/Hybrid longevity scenario)

* Instead of stressing the current values of assets, the low returns scenarios incorporate a downward shift in risk premiums on these assets. Interest and inflation rates shocks are identical as considered in the two shock scenarios.

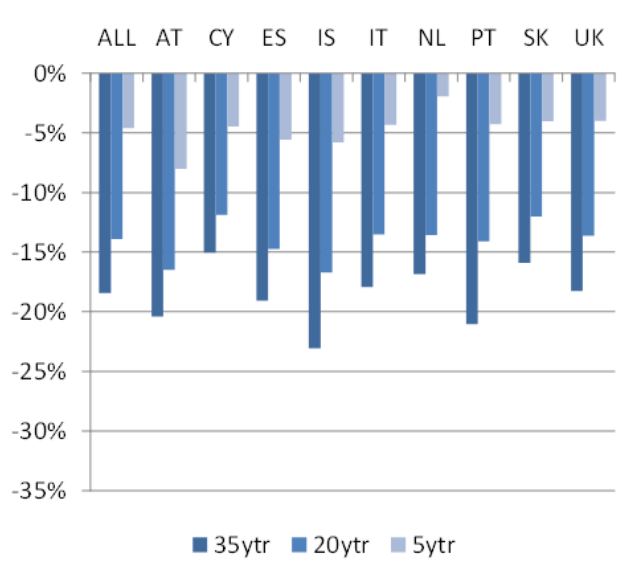
Main stress impacts in low return scenarios

Impact on long-term risk premiums	Long 1	Long 2
Government bonds	-25 bps	-20 bps
Corporate bonds (and other fixed income)	-20 bps	-35 bps
Equities, property, alternatives	-150 bps	-100 bps
Cash and deposits	-	-

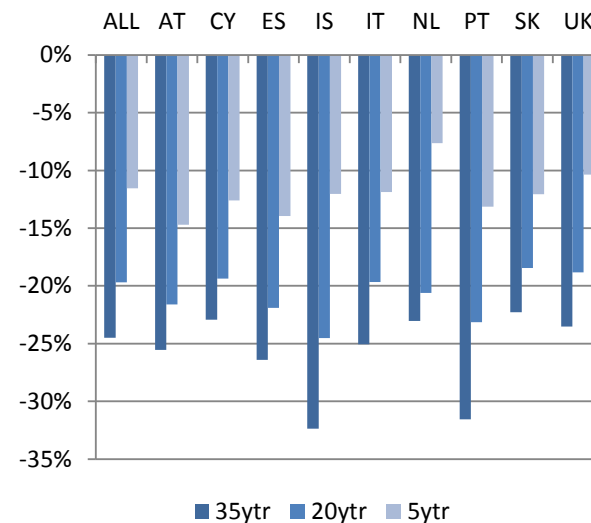
- 1. The impact in the level of pensions is highly dependent on the time that plan members have before retirement.**
- 2. Eldest plan members have the highest pension wealth and the least time to recover from price falls of assets.**
- 3. Low interest rates make it more expensive to convert accumulated pensions wealth into annuities.**
- 4. Retirement income of youngest plan members is overall the most heavily impacted by long-term low return on assets.**

DC satellite module: Impact on Replacement Rates

Low return 1 - Weighted average replacement rates - Typical pay-out method



Low return 2 - Weighted average replacement rates - Typical pay-out method



Source: EIOPA

Note: Decrease of replacement rates, in relative terms. Index built as follows: $(\text{Replacement rate stressed} - \text{Replacement rate baseline}) / \text{Replacement rate baseline}$.

1. To further **develop a deeper understanding** of the **impact of the pressures** in the pensions sector **on financial markets** and **the real economy**
2. To continue **working on a common market-sensitive methodology** towards the valuation of assets and liabilities for the purposes of stress testing
3. To continue **providing an up-to-date picture of the European Union pensions landscape**, including the **different prudential mechanisms** used to deal with the identified risks and vulnerabilities



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**Thanks for your attention
Questions?**

Daniel Perez - daniel.perez@eiopa.europa.eu
Principal Expert Financial Stability
Stress Test Project Manager
