



# The actuarial perspective of the Table 29 pension exercise

Views and experiences – Actuarial Association of Europe and International Labour Organisation

**Pension Expert Group Meeting**  
**Eurostat**

Virtual Meeting, 28 April, 2023

# Structure of presentation

- Actuarial Association of Europe (AAE)
- The contribution of social security actuaries
- The International Labour Organisation (ILO) and AAE experiences and views
  - ✓ Methodological aspects of T.29 pension calculations
  - ✓ Transparency and cross-comparability of T.29 results
  - ✓ Public engagement and communication of T.29 figures
- T.29 pension exercise: EU comparison of pension obligations of 1<sup>st</sup> pillar of pension system
- Enhancement of communication and reporting from an actuarial perspective

# Actuarial Association of Europe (AAE)

- The AAE was established in 1978, originally as the Groupe Consultatif Actuariel Européen, to represent actuarial associations in Europe.
- Its purpose is to provide advice and opinions to the various organisations of the European Union – the Commission, the Council of Ministers, the European Parliament, EIOPA, Eurostat and their various committees – on actuarial issues in European legislation.
- The AAE currently has 37 member associations in 36 European countries, representing over 27,000 actuaries.
- Advice and comments provided by the AAE on behalf of the European actuarial profession are totally independent of industry interests.

# The contribution of social security actuaries

1. Upgrade of the framework of Eurostat's T.29 pension exercise
  - ✓ Improvement of the methodological aspects of calculating T.29 figures
  - ✓ Enhancement of transparency and cross-country comparability of T.29 results
2. Enhancement of communication of EU pension obligation figures
  - ✓ Assessment of the financial position of social security pension schemes, based on sound international actuarial standards and principles
  - ✓ Creation of a robust framework for effective communication and interpretation, using multiple disclosure approach

# ILO and AAE experiences and views

## Methodological aspects of T.29 pension calculations

- Actuarial input was provided in 2020 for the update of the Technical compilation guide for pension data in national accounts (2020 edition)
  - ✓ Methodological aspects of T.29 calculations, based on international actuarial standards
- Potentially, further actuarial input is required in choosing an appropriate methodological approach for treating a number of design features, such as:
  - ✓ Automatic adjustment mechanisms
  - ✓ Minimum pension benefits

# ILO and AAE experiences and views

## Transparency and cross-comparability of T.29 results

- Factsheets accompanying Table 29 figures were reviewed (focus on Column H)
- In general, these were available, complete and comprehensive
- Particularly useful for understanding approach for one member state
- Some potential areas of improvement:
  - ✓ Provide fixed list of options for key items (methodological, assumptions)
  - ✓ Publish new tabular summaries of these items to enable cross-comparison
  - ✓ Recommend that rationale be documented in the factsheets when a Member State does not adopt standard assumptions/ approach
  - ✓ Particularly for discount rate, mortality assumptions
- Upgrade of factsheet template to enhance cross-comparability and transparency of figures



# ILO and AAE experiences and views

## Transparency and cross-comparability of T.29 results

- Factsheet summary tables
  - ✓ Mortality Tables
  - ✓ Projection Method
  - ✓ Discount Rate
  - ✓ Wage Growth
  
- Some specific examples of alternative approaches (for column H) include:
  - ✓ Variable discount rates compared to 4% fixed
  - ✓ Custom mortality tables rather than Eurostat tables
  - ✓ Treatment of minimum pension

Projection Method Sample Table

	ABO	PBO
DK	✓	
BG		✓
IE		✓
NL		✓
LV		✓
LT		✓
CZ		✓
HR		✓
CY		✓
HU		✓
PL		✓
MT		✓
BE		✓
DE		✓
RO		✓
FI		✓
ES		✓
SI		✓
LU		✓
EE		✓
IT		✓
FR		✓
AT		✓
SK		✓

# ILO and AAE experiences and views

## Public engagement and communication of T.29 figures

- Limited EU-wide communication in the dissemination of T.29 results
- In general, low level of public engagement at national level
- Example of discussion in Finland

FAQ on the [website](#) of The Finnish Pension Alliance TELA

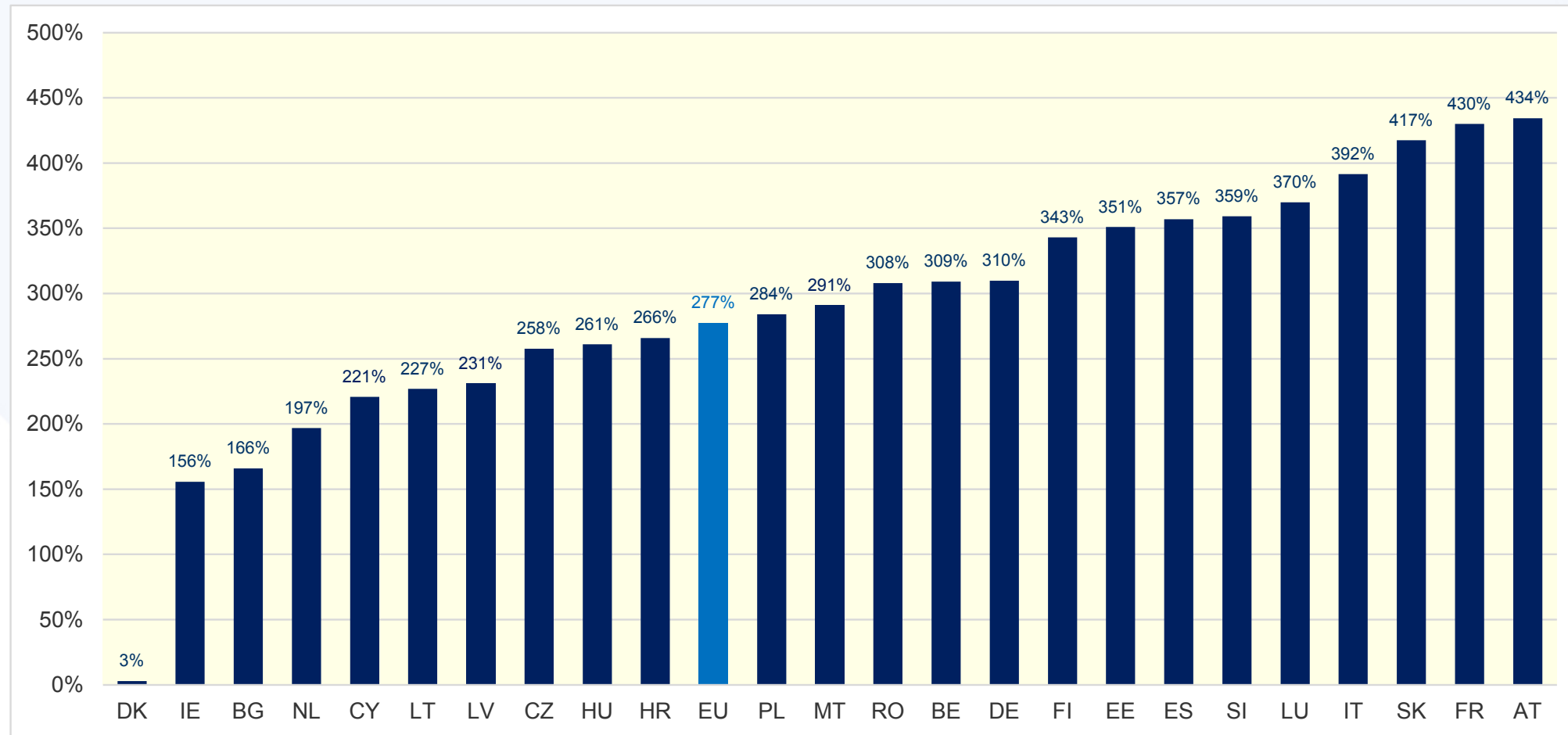
*Q: The amount of pension funds is huge, more than 200 billion euros.  
Why couldn't these funds be used to improve pension indexation?*

*A: ... The calculated pension liabilities of the pension systems total  
approximately 770 billion euros. Hence there is no extra in the funds.*

- Multiple disclosure by some countries when presenting T29 results
- Other countries caveat results to avoid mis-interpretation



# T.29 pension exercise – EU comparison of ADL as % of GDP in 2018 (1<sup>st</sup> pillar pension system<sup>1</sup>)



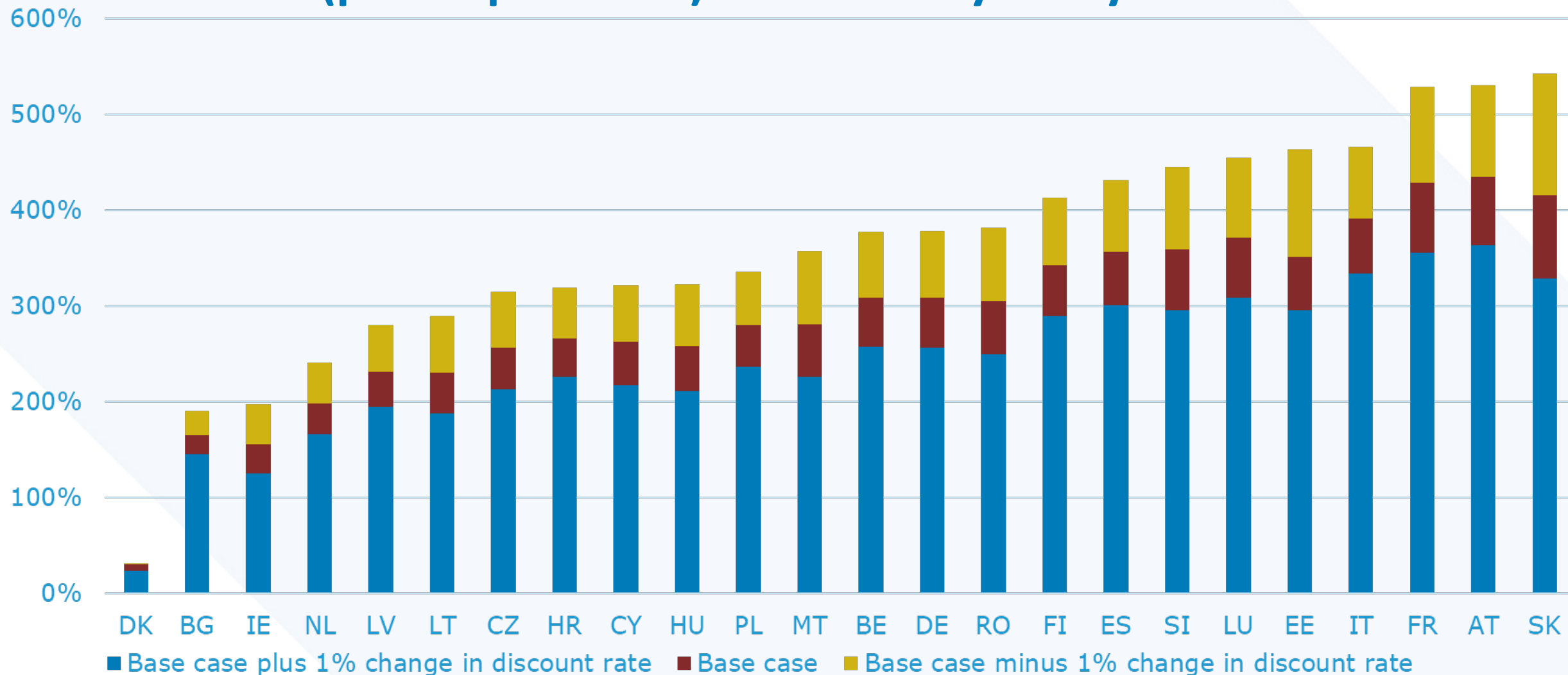
Source: Eurostat

<sup>1</sup> The 1<sup>st</sup> pillar of the national pension system refers to the contributory social security pension schemes (SSPS) which are recorded under column H of Table 29 ("Social Security Pension Schemes"), as well as under column G of Table 29 ("Classified in general government") in Member States where a separate SSPS exists for government employees

## T.29 pension exercise – EU comparison of ADL as % of GDP in 2018 (1<sup>st</sup> pillar pension system)

- ADL figures range from 156% (IE) to 434% (AT)
- EU average: 277%
- DK: virtually no ADL
- All MS used a fixed nominal discount rate of 4%
  - ✓ HU and PL used a fixed nominal discount rate of 5% and 4.5% respectively - ultimate rate as from 2050 onwards (AWG assumption)
  - ✓ RO used a variable nominal discount rate – 4.69% in 2020 linearly increasing to 6.14% in 2030 and then linearly decreasing to 4.5% from 2050 onwards (AWG assumption)
- T.29 ADL figures, presented in isolation, does not provide meaningful information about the financial position of SSPS operated on a PAYG basis

# Eurostat 2020 results – EU comparison of ADL as % of GDP in 2018 (public pensions) – Sensitivity analysis



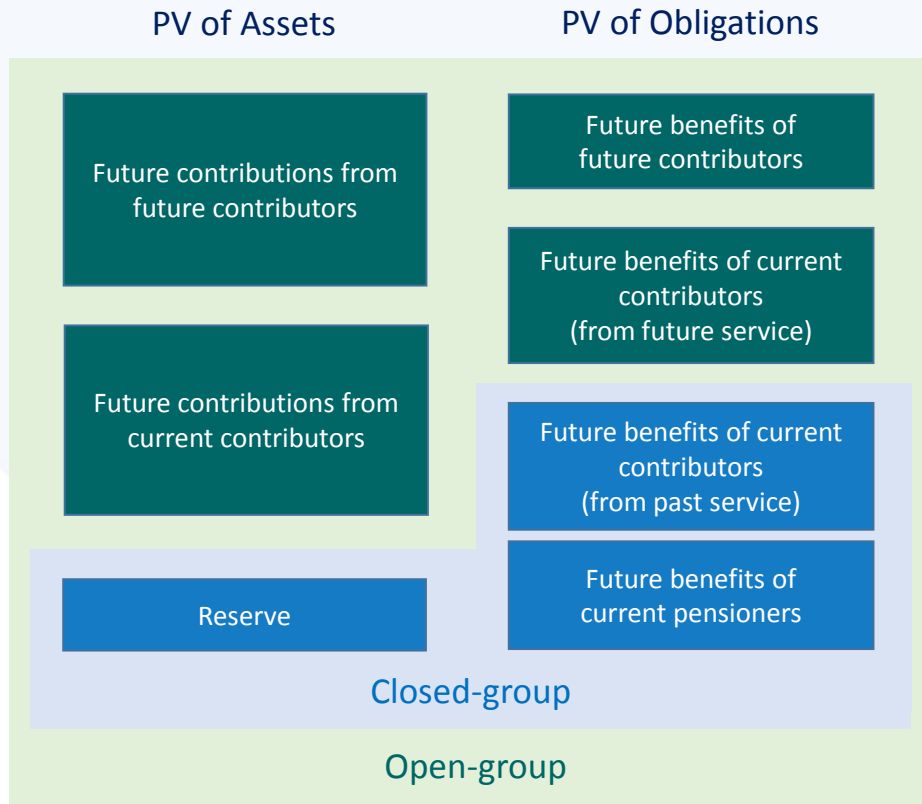
Source: Eurostat

# Enhancement of communication and reporting from an actuarial perspective

- Understanding key methodological considerations
  - ✓ Closed vs Open group approach
- Conduct of periodic actuarial reviews of SSPS: an ILO perspective
  - ✓ Assessment of the financial position of SSPS under open-group
- Effective communication and interpretation of T.29 social security pension figures
  - ✓ Multiple disclosure approach

# Key methodological considerations:

## Closed *versus* open-group approach



### Closed-group

- It only includes current pensioners and contributors
- No future entrants are taken into account
- It ignores future contributions (largest asset)
- No future accrual of new benefits
- It provides incomplete financial picture of a SSPS
- It only reflects the performance of a SSPS in the past

### Open-group

- It includes current pensioners and contributors as well as future contributors
- All future contributions are considered
- All future benefits of current pensioners and contributors (past and future service) and future contributors are considered
- It provides a complete and forward-looking financial picture of a SSPS

# Key methodological considerations:

## Closed *versus* open-group approach

- SSPS typically operate on a PAYG basis
  - ✓ Implicit social contracts: current pensioners' benefits are covered by contributions of current contributors
- Open-group approach
  - ✓ Suitable for assessing the financial sustainability of SSPS
  - ✓ Explicitly accounts for the intergenerational societal commitments
- Accrued-to-Date Liability (ADL) method under Eurostat's T.29 pension exercise
  - ✓ Consistent with closed-group approach
- AWG exercise as well as periodic actuarial reviews of SSPS
  - ✓ Consistent with open-group approach



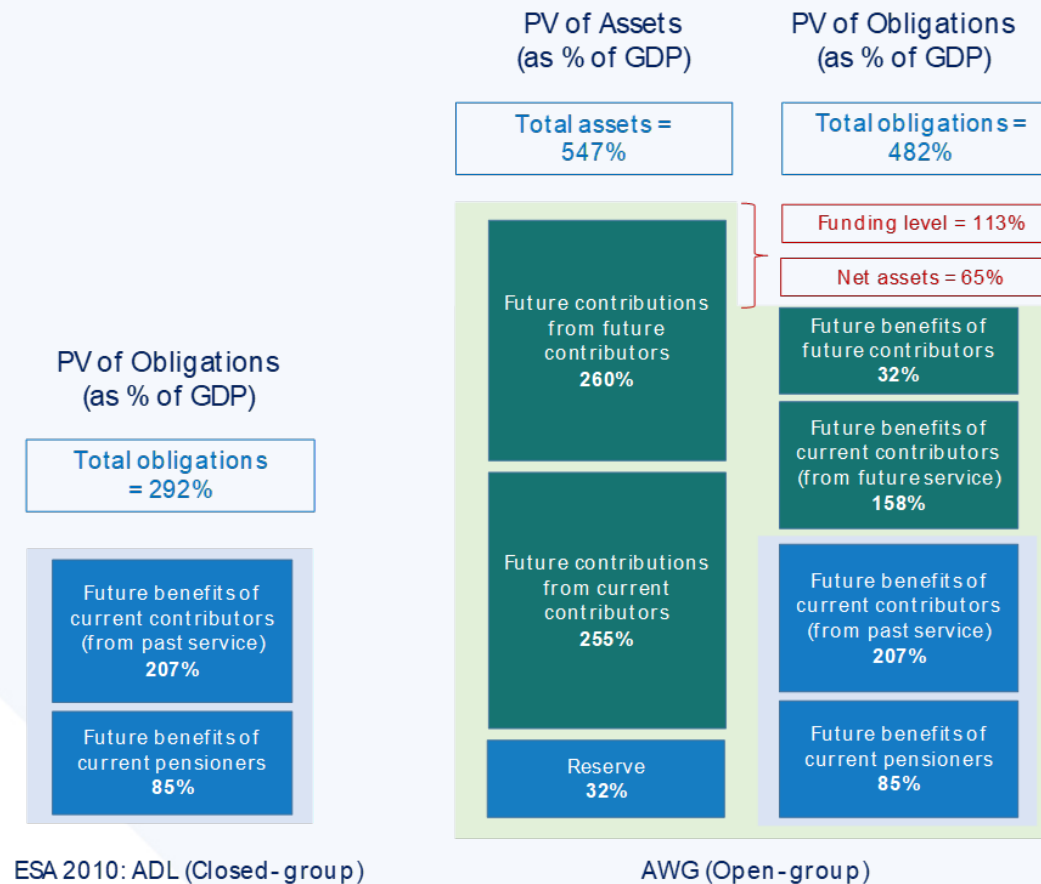
# Conduct of periodic actuarial reviews of SSPS: an ILO perspective

- Typically, a statutory requirement aiming towards:
  - ✓ Review the current and projected financial position of SSPS
  - ✓ Assess the long-term financial sustainability of SSPS
- Form an essential part of risk management and contribute towards good financial governance of social security schemes
  - ✓ An important prerequisite for well-founded SSPS and for establishing public trust
- Actuarial review reporting, based on actuarial professional standards and ILO principles
  - ✓ Provides provide meaningful information about the financial position of SSPS
  - ✓ Enables effective social dialogue with stakeholders and consultation with public regarding SSPS sustainability
  - ✓ Likely to reinforce public and political support, especially when reforming SSPS

# Effective communication and interpretation of T.29 social security pension figures

- Creation of a robust framework
  - ✓ Enabling informed decisions to be made by stakeholders
  - ✓ Minimising the risk of misinterpretation or misuse
- Use of multiple disclosure approach in the form of balance sheets
  - ✓ Consistency with its financing method, as per international actuarial standards and guidelines
  - ✓ Guideline 38 “Compliance with requirements of national and international statistical reporting”, ILO-ISSA guidelines on actuarial work for social security
  - ✓ Paragraph 2.4 “Consistency with the Financing Method”, International standard of actuarial practice 2 (ISAP2)

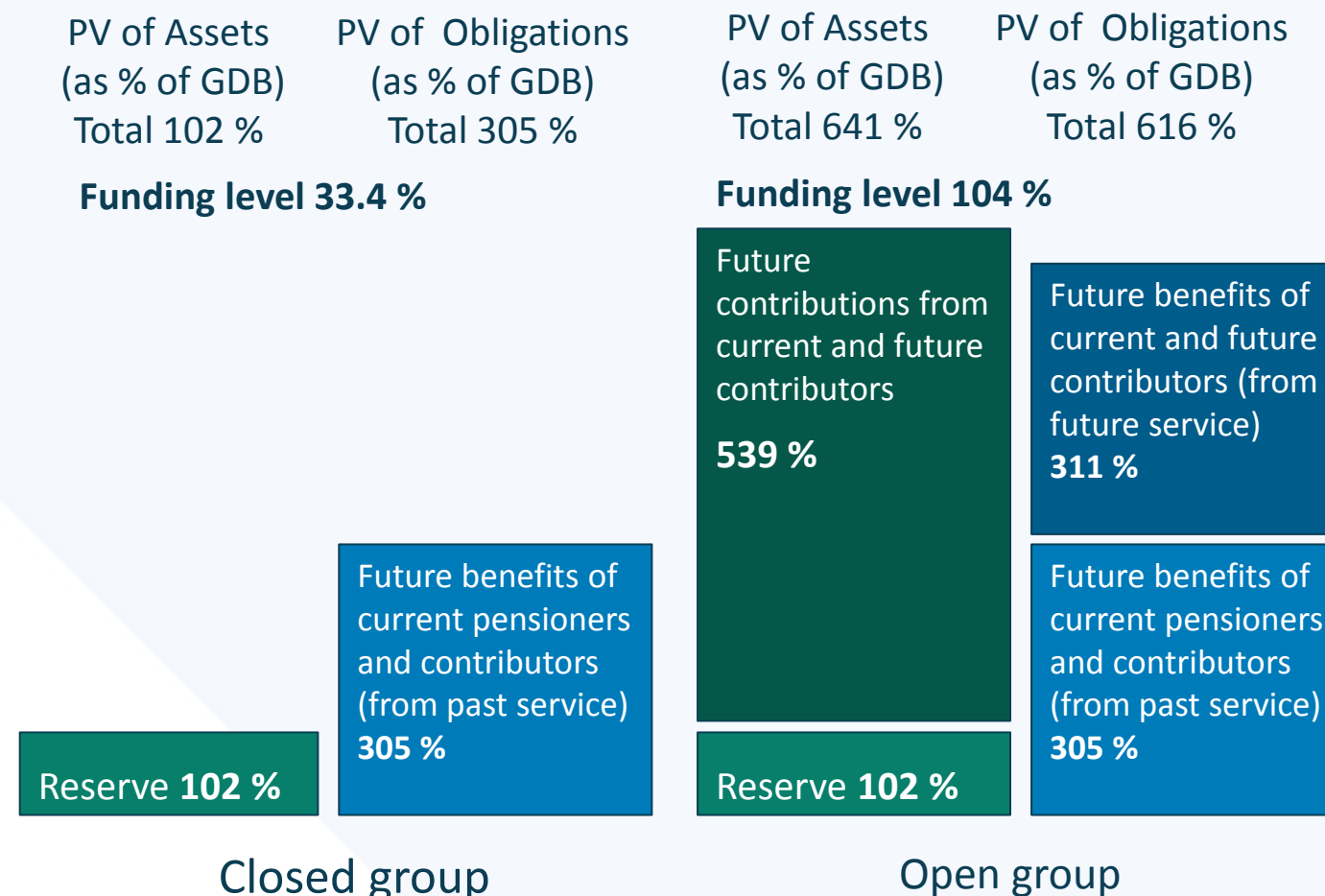
# Illustration: Cyprus Social Insurance Scheme (SIS) – Eurostat 2020: ADL versus EPC-AWG 2021 (open-group)



- ADL figure does not allow for assessing long-term financial sustainability of Cyprus SIS
- Cyprus SIS is financially sustainable with a funding level of 113% under open-group approach

Source: The Cyprus Statistical Service

# *Illustration: Finnish statutory earnings-related pensions* (Both private sector (TyEL) and public sector (JuEL) employees) – Closed group versus open group for 2021



- Both closed group and open group calculations are disclosed regularly in report for long terms projections
- Assumption for investment returns is used as discount rate
- Finnish statutory earnings-related pension scheme is financially sustainable with a funding level of 104 % under open-group approach

Source: The Finnish Centre of Pensions: Statutory pensions – Long-term Projections 2022

## Concluding remarks

- The contribution of social security actuaries in the T.29 exercise has been important
  - ✓ Based on ILO and AAE experiences, there is further room for improvement from methodological, transparency and communication perspective
- A proper and fair assessment of the financial position of SSPS on an on-going basis, as per ILO perspective, contributes towards
  - ✓ The establishment of a high level of public trust
  - ✓ Enables an effective communication and interpretation of T.29 pension figures, if the multiple disclosure approach is adopted

## Questions / Comments?

# References

1. [From Labour Supply to Labour Productivity](#)  
AAE Discussion Paper, Brussels, May 2022
2. [Drouin, Plamondon, Lloret \(2018\) Towards a fair assessment of social security liabilities under pay-as-you-go and partially funded schemes](#)  
ILO Article, International Social Security Review 71, 3/2018, 81-103
3. [ISSA-ILO Guidelines on actuarial work for social security](#)  
International Social Security Association, International Labour Office, 2016
4. [International standard of actuarial practice 2 \(ISAP 2\)](#)  
Financial analysis of social security programs, Ottawa,  
International Actuarial Association, 2018

Save the date: Virtual event on November 2nd 2023

**Social Security Forum: “The challenges facing Social Security in our times”**



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