



Discussion Note:

2.23 Employee benefits – defined-benefit schemes

Summary Details

Task Team Responsible	GFS Compilation Task Team (TT1)
Authors of Discussion Note ¹	João Carlos Fonseca, Abdullah Alhaji Alghali
Summary of Issues and Draft Recommendations: This Discussion Note (DN) considers whether the existing government finance statistics (GFS) guidance on employment-related defined-benefit pension schemes is sufficient. It is noted that the <i>GFSM 2014</i> ² does not include measurement guidance on the calculation of imputed contributions and net present value of future benefits for employment-related defined-benefit schemes. To support compilers and enhance GFS comparability, the DN proposes to include in the updated GFSM (and associated supplementary guidance) measurement guidance on actuarial methods and assumptions related to employment-related defined-benefit schemes. These measurement requirements are proposed to be drawn from IPSAS 39, <i>Employee Benefits</i> .	

Background and Issues

1. In relation to employment-related defined-benefit social insurance schemes, the *GFSM 2014* distinguishes between pension (and other retirement benefit) schemes and nonpension benefit schemes (see *GFSM 2014*, Figure A2.2). For pension schemes the basic guidance is to treat the contributions as an incurrence of a liability of government as employer and an equal financial asset for the employee (pension entitlements) for the employee and the benefit payments as transactions reducing that liability of government and financial asset for the former employee (see *GFSM 2014* paragraphs 7.189-7.198 and Appendix 2). However, nonpension benefit schemes are not recorded as transactions in financial assets and liabilities but instead the social benefits are reported as expenses and the contributions (actual or imputed) in the compensation of employees and social contributions (see *GFSM 2014*, paragraphs A2.64-A2.66 and Table A2.4). Additionally, the *GFSM 2014* only includes legal (or contractual) obligations in the measurement of liabilities, including those arising from defined-benefit schemes, thus not including constructive obligations.

¹ The views expressed in this Discussion Note are those of the authors and/or Task Team and do not necessarily represent the views of the IMF

² [Government Finance Statistics Manual 2014](#) (*GFSM 2014*)

2. In 2016, the International Public Sector Accounting Standards Board (IPSASB) issued IPSAS 39 (*Employee Benefits*)³ with detailed guidance on how to account in financial statements for employment-related defined-benefit schemes. In contrast to the *GFSM 2014* guidance, IPSAS 39 covers both pension and nonpension employee benefits and treats them in the same way. IPSAS 39 also does not distinguish between legal (or contractual) obligations and constructive liabilities, again with both being treated equally. IPSAS 39 also includes guidance on both recording and measurement.

3. [GFSM Update DN 2.21 \(Social Security Schemes\)](#) considers several issues relating to social insurance schemes for the GFSM update, including (i) how to distinguish between pension and nonpension employment benefits, and (ii) whether to define and recognize constructive liabilities. Therefore, neither of these issues are discussed further in this DN.

4. The focus of this DN is whether the current guidance on the recording and measurement of employment-related defined-benefit pension schemes is sufficient, or whether it can be improved and expanded.

5. The *GFSM 2014* provides high-level guidance on what should be recorded for employment-related defined-benefit pension schemes. *GFSM 2014* paragraphs 7.191 and A2.54 indicate that the level of pension benefits promised by the employer is determined by an actuarial formula, while paragraph 7.197 indicates that the pension entitlement is the present value of the promised benefits. *GFSM 2014* paragraph 7.198 then further explains that because the measurement of defined-benefit pension fund entitlements rest on various assumptions and methods, the nature of coverage and estimations should be described in metadata. However, the GFSM does not prescribe details on how to calculate the pension entitlement or imputed contributions. Indeed in *GFSM 2014* paragraph A2.54 it states that the “calculation of imputed contributions and net present value of future benefits requires advanced actuarial techniques, beyond the responsibility of GFS compilers”.

6. However, not discussing actuarial assumptions and valuation methods or attributions of benefits to periods of service may impact the comparability of GFS data. Differences in discount rates, attribution of benefits to service periods, mortality assumptions, and treatment of salary growth can all impact the assessment of pension entitlement obligations and imputed contributions. Although not directly referenced in the *GFSM 2014* there is discussion of appropriate methodologies for compiling pension data in Eurostat’s [“Technical compilation guide for pension data in national accounts”](#), as well as literature related to OECD’s [global pension statistics](#) data collection.

7. As an increasing number of countries are adopting IPSAS Standards there is an opportunity to review the differences and similarities between IPSAS 39 and *GFSM 2014* with respect to employment-related defined-benefits and consider aligning the guidelines where it is appropriate and helpful to do so.

8. *GFSM 2014* and IPSAS 39 require the recognition of these pension liabilities / entitlements. As the *GFSM 2014* does not provide specific guidance on how to measure these liabilities, IPSAS 39, as an international accounting standard for the public sector, may provide useful measurement principles that may assist GFS compilers in preparing data for GFSM reporting.

³ IPSAS 39 measures the value of the defined-benefit obligation based on benefits attributed to current and past service, using actuarial assumptions such as discount rates, mortality, salary growth and benefit indexation. See [IPSAS 39, Employee Benefits](#) for further details.

9. While Chapter 24 (paragraphs 24.157–24.183) of the 2025 SNA⁴, provides some additional guidance on the accounting for defined-benefit schemes, this guidance also does not have the same level of detail as in IPSAS 39 for the measurement of defined-benefit pension schemes that arise in an employer-employee relationship.

Options Identified to Address Issues

10. The task team considered two options to address the issue discussed above:

- **Option 1:** Keep the *status quo* by not adding additional guidance in the GFSM update; and
- **Option 2:** Add guidance in the GFSM update (either as core text, in an appendix, and/or in separate compilation guidance) on the measurement of defined-benefit schemes drawn from IPSAS 39 guidance on defined-benefit plans.

11. **Option 1** proposes to keep the *status quo* by not adding additional guidance in the GFSM update.

- This option has the advantages of:
 - a. Maintaining harmonization with other statistical standards (2025 SNA), where there is also limited guidance on the measurement of defined-benefit schemes, which is one key objective of the GFSM 2014 update process; and
 - b. Giving flexibility to compilers of statistics in accordance with GFSM 2014 to measure the defined-benefit schemes as they see appropriate using the accounting data available to their specific situation, as not all countries apply IPSAS Standards or can use the IPSAS based-accounting data for statistical compilation.
- However, this option has the following disadvantages:
 - a. It may impair comparability of the stocks and flows associated with defined-benefit schemes as different governments may apply different requirements for similar defined-benefit schemes;
 - b. It may impair understandability and decision-making in those jurisdictions that may apply different measurement requirements of defined-benefit schemes when compiling statistics in accordance with GFSM 2014 because of lack of guidance in this manual, while they maybe applying IPSAS 39 in their IPSAS Standards-based financial statements; and
 - c. Possible increased costs of compiling statistics because of different requirements being used to measure the same defined-benefit schemes.

12. **Option 2** proposes to add guidance in the GFSM update on the measurement of defined-benefit schemes drawn from IPSAS 39 with no change to the current GFSM guidance on when to recognize defined-benefit liabilities. See Annex for more details as to what measurement principles would be drawn from IPSAS 39. This option would:

- a. Adapt the guidance from IPSAS 39 and include it in the GFSM update (either as core text, in an appendix, and/or in separate compilation guidance); and

⁴ [2025 System of National Accounts \(pre-edit version\)](#) (2025 SNA)

- b. Exclude constructive obligations⁵, as defined in IPSAS 39, that arise from employee defined-benefit schemes as these are not recognizable in *GFSM 2014*.
- This option has the following advantages:
 - a. Meets users needs, which is one key objective of the *GFSM 2014* update process, by adding guidance that is currently lacking in the GFSM and that is important for fiscal reporting and analysis;
 - b. Enhanced comparability of the stocks and flows associated with defined-benefit schemes between governments as they would be following the same requirements when measuring them;
 - c. Enhanced understandability and decision-making in those jurisdictions that apply IPSAS 39 in their IPSAS Standards-based financial statements as they would follow similar requirements to measure defined-benefit schemes when compiling statistics in accordance with *GFSM 2014*; and
 - d. Possible reduced costs for the compilation of statistics in accordance with GFSM as statisticians could directly use (where available) IPSAS 39-based accounting data as source data.
- However, this option has the following disadvantages related to prescribing a more detailed guidance on the measurement of defined-benefit schemes as there may be:
 - a. Less flexibility for adopting the GFSM principles across jurisdictions with different levels of capacity, sophistication and/or that apply accounting standards different from IPSAS Standards;
 - b. Lack of technical capacity of statisticians in many jurisdictions to understand actuarial calculations made by actuaries;
 - c. An increased risk of the guidance being outdated in this rapidly evolving area; and
 - d. Difficulty in practice to apply the proposed guidance due to lack of data availability and different legal frameworks, which ultimately may determine the feasibility of what can be measured in a specific jurisdiction.

13. As part of the *GFSM 2014* update, it is foreseen that in addition to updating the text of the GFSM there may be need for the development of supplementary practical compilation guidance to be included outside the GFSM. The drafting team considers that part or all of the proposed guidance under Option 2 may be included as supplementary compilation guidance depending on the final agreed structure of the GFSM update. Exactly which elements of the proposed additional guidance are to be included in the GFSM update (core text and/or as an appendix) or in supplementary guidance (outside of the GFSM), are out of the scope of this DN. This will be a decision for the GFSM editors.

14. As the same compilation methods and principles should be common across macroeconomic statistics. It is proposed to explore options for producing common supplementary guidance for use by all compilers of macroeconomic statistics, and not just GFS compilers.

⁵ [GFSM Update DN 2.21 \(Social Security Schemes\)](#) includes an option which would recognize constructive obligations as liabilities in the GFSM framework. This option was not the recommended option, however, if this option were to be adopted, then Option 2 in this Discussion Note would need to be amended by removing the exclusion of constructive obligations in the measurement of defined-benefit obligation, i.e., constructive obligations would be included in the measurement of the defined-benefit obligation. An example of a constructive obligation in the context of employee benefits would be new benefits being added to the plan outside of the contractual arrangements between employer and employee.

Draft Recommendations

15. **Based on the considerations outlined in this note, the task team favors Option 2.** The current guidance in the *GFSM 2014* is not sufficient for consistent measurement of defined-benefit schemes. Therefore, the current guidance in the *GFSM 2014* and/or supplementary guidance should be expanded to provide more guidance on the measurement of defined-benefit pension schemes, so to ensure comparability between governments that will support sound fiscal reporting and analysis.

16. It is acknowledged that there may be potential implementation issues that impact consistent measurement of defined-benefit pension schemes as well as impacts on the longevity of the final GFSM text if too tightly linked to external guidance (such as IPSAS 39) that may subsequently change. It is therefore recommended that detailed guidance on the measurement of defined-benefit schemes should be provided outside of the GFSM as supplementary guidance. In applying these principles, the final GFSM text should allow for differences in national accounting frameworks, data availability, and actuarial capacity.

Proposed Text for GFSM Update

17. The task team proposes to include additional measurement guidance in the updated GFSM or associated supplementary guidance on the following topics related to defined-benefit scheme actuarial methods and assumptions drawn from IPSAS 39 (see Annex for details):

- a. Clarify the definitions of defined-benefit pension schemes using supplementary information from IPSAS 39;
- b. Actuarial valuation method;
- c. Attributing Benefit to Periods of Service;
- d. Actuarial Assumptions—General Principles;
- e. Actuarial Assumptions—Mortality;
- f. Actuarial Assumptions—Discount Rate; and
- g. Actuarial Assumptions—Salaries, Benefits and Medical Costs.

Questions for Global Consultation

1. Which option do you prefer (Option 1; Option 2)? Please explain the reason for the option selected and provide any other additional comments, including any alternative options you would like to propose.
2. Do you agree that the main principles of IPSAS 39 should be analyzed to assess their suitability to be included as guidelines in the updated GFSM and associated supplementary guidance?



Annex – Summary of Illustrative Proposed Guidance on Defined-Benefit Schemes

- The proposed and summarized guidance below is for illustrative purposes and is drawn from IPSAS 39, *Employee Benefits* addressing only the measurement of the present value of a defined-benefit obligation.
- The exact wording of the principles summarized below and their final location in the GFSM update (i.e., whether in or outside the manual) will be addressed during the editorial stage of the GFSM update.
- The principles of measurement provided below have the objective of supporting statisticians and actuaries working together in measuring the liabilities related to employee-employer related post-employment benefits.
- The references to Eurostat's "[Technical compilation guide for pension data in national accounts](#)" is for information purposes only, as it is statistical guidance specific to the European Union.

Topic	Main Principles	IPSAS 39 Paragraph	Eurostat's technical compilation guide	Proposal for GFSM
Definitions	<i>Definitions Relating to the Net Defined-Benefit Liability (Asset)</i> The <u>present value of a defined-benefit obligation</u> is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.	8	Not included as defined in ESA	No change to definitions
Actuarial Valuation Method	Projected unit credit method	69–70	Projected benefit obligation (PBO) approach for pension schemes where the underlying benefit includes a factor for wage increases. Accrued benefits obligation (ABO) approach where such a factor is not present.	Include as compilation guidance in GFSM

Attributing Benefit to Periods of Service	Attribute benefit to periods of service under the plan's benefit formula	72–76	Not available	Include as compilation guidance in GFSM
Actuarial Assumptions —General Principles	Unbiased and mutually compatible	77–82	Not available	Include as high-level principles in GFSM
Actuarial Assumptions — Mortality	Best estimate of the mortality of plan members both during and after employment	83–84	Based on scheme data and mortality tables	Include as compilation guidance in GFSM
Actuarial Assumptions —Discount Rate	Reflect the time value of money consistent with the currency and estimated term of the post-employment benefit obligations	85–88	Risk-free rate based on long-term maturity	Include as compilation guidance in GFSM
Actuarial Assumptions —Salaries, Benefits and Medical Costs	Measurement of the defined-benefit obligations on a basis that reflects: a. The benefits set out in the terms of the plan (or resulting from any constructive obligation that goes beyond those terms) at the end of the reporting period; b. Any estimated future salary increases that affect the benefits payable; c. The effect of any limit on the employer's share of the cost of the future benefits; d. Contributions from employees or third parties that reduce the ultimate cost to the entity of those benefits; and e. Estimated future changes in the level of any state benefits that affect the benefits payable under a	89–100	Consider future development of wages	Include as compilation guidance in GFSM

	defined-benefit plan, if, and only if, either: (i) Those changes were enacted before the end of the reporting period; or (ii) Historical data, or other reliable evidence, indicate that those state benefits will change in some predictable manner, for example, in line with future changes in general price levels or general salary levels.			
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