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Final report

on Joint Guidelines

to ensure that consistency, long-term considerations and common standards for assessment methodologies are integrated into the stress testing of environmental, social and governance risks pursuant to Article 100(4) of Directive 2013/36/EU and Article 304c(3) of Directive 2009/138/EC

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1. Executive summary

The Joint Guidelines aim to ensure that competent authorities consistently integrate ESG risks into their national supervisory stress testing activities. These guidelines are addressed to competent authorities and should be applied when performing supervisory stress tests, either by integrating ESG-related risks into their existing framework or by measuring the impact of ESG risks under adverse scenarios in a complementary assessment, where applicable according to the sectoral legislation.

When determining the principles and methodological considerations, competent authorities should decide on the most suitable design and features of the stress test based on its intended objectives. They should clearly define the coverage in terms of portfolios, sectors, geographies, and activities to ensure a balanced and pragmatic approach that reflects the maturity of available methodologies and data.

Competent authorities should ensure that sufficient human and material resources are allocated to the ESG stress testing process. This includes the involvement of staff with expertise in ESG risk assessment, stress testing methodologies, and financial supervision. They should also have data management and collection capabilities that support access to high-quality ESG data and develop and maintain IT infrastructure for efficient data collection, scenario determination, and result analysis.

Appropriate timelines should be set for conducting ESG stress tests and scenario analyses, balancing the need for completeness and accuracy with the requirements of the decision-making process. Financial entities should be given sufficient preparation time to compile relevant information and conduct their assessments, enabling competent authorities to perform a comprehensive review and ensure accurate reporting. The process should facilitate efficient analysis, consistent communication of findings, and integration into the broader supervisory framework.

The ESAs conducted a public consultation on the Joint Guidelines between 27 June 2025 and 19 September 2025. Several stakeholders provided feedback on the consultation paper and, overall, respondents broadly welcomed the Joint Guidelines. Based on the stakeholder feedback, the drafting of the Joint Guidelines was refined, without changing the general approach set out in the consultation paper.

In terms of next steps, the Guidelines will be translated into the official languages of the European Union and published on the websites of the ESAs. The deadline for competent authorities to notify the respective ESA whether they comply or intend to comply with the Guidelines will be two months after the publication of the translated Guidelines.

The Joint Guidelines apply from 1 January 2027.

2. Background and rationale

Legal basis

1. In accordance with the requirements introduced by Directive 2013/36/EU as amended by Directive 2024/1619 and Directive 2009/138/EC, EBA, ESMA and EIOPA (together, the ESAs) jointly issue Guidelines to ensure that consistency, long-term considerations and common standards for assessment methodologies are integrated into the stress testing of environmental, social and governance (ESG) risks.

2. Article 100(4) of Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms (Capital Requirements Directive, CRD) and Article 304c(3), second subparagraph of Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II), mandate the ESAs, through the Joint Committee, to develop Joint Guidelines to ensure that consistency, long-term considerations and common standards for assessment methodologies are integrated into the stress testing of ESG risks. The Joint Committee is to publish those Joint Guidelines by 10 January 2026. The ESAs are required, through the Joint Committee, explore how social and governance-related risks can be integrated into stress testing.

Background

3. In line with the legal basis indicated above, these Joint Guidelines should be read in conjunction with sectoral legislation as background. Sectoral legislation sets out obligations to competent authorities, procedural rules and prudential assessment criteria on how competent authorities perform supervisory stress tests, either as part of the relevant regulatory framework or as an ad hoc assessment. These Joint Guidelines were developed pursuant to Article 100(4) of Directive 2013/36/EU and Article 304c(3), second subparagraph of Directive 2009/138/EC and do not include a new requirement for competent authorities to carry out ESG supervisory stress tests. As such, these guidelines are only applicable to the competent authorities of financial entities subject to Directive 2013/36/EU and Directive 2009/138/EC.

4. The two main objectives are:

   a) to improve the legal certainty, clarity and transparency of the supervisory approval process with regard to the integration of ESG risks into competent authorities' stress testing frameworks and scenario analysis frameworks; and

   b) to ensure consistency, long-term considerations and common standards for assessment methodologies throughout the EU and across sectors.

5. ESG risks can have far-reaching implications for the stability of both individual financial entities and the financial system as a whole[1]. Hence, competent authorities should consistently factor those risks into their related supervisory activities, including the supervisory review and evaluation process and the stress testing of those risks, also leveraging on already available scenarios (e.g. NGFS, IPCC, IEA).

6. Although ESG stress testing is a relatively nascent field compared to more traditional financial stress testing, significant progress has been made to explore available data and models, in particular for environmental risk linked to climate change. Acknowledging the remaining limitations and inherent uncertainty in ESG data and modelling, competent authorities should keep their approach to ESG stress testing under review, as new methodologies become available and financial entities gain experience, starting with the environmental (E) component first with a focus on climate and increasing considerations for other nature-related risks (e.g. biodiversity, deforestation).

7. The guidelines also clarify how ESG stress testing and scenario analysis can serve different objectives and time horizons, encompassing both the assessment of the financial entities' resilience to significant short-term shocks and the resilience of their business model over a longer time horizon.

8. As per the related mandate, the Joint Guidelines are designed to support a consistent, long-term approach to ESG stress testing, while being flexible enough to accommodate further developments in methodology and data availability.

9. In the first phase, competent authorities may focus on climate and environmental risks, addressing both physical and transition risks aiming to distinguish impacts, even if indirect, on the main risk exposures. In addition, an extension of the coverage of the stress test to other ESG factors (i.e. social and governance factors) could be envisaged if the available tools can be considered adequate for such assessments.

3. Guidelines

Status of these Joint Guidelines

10. This document contains Joint Guidelines issued pursuant to Articles 16 and 56 of Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC; Regulation (EU) No 1094/2010

[1] Directive (EU) 2024/1619 of the European Parliament and of the Council of 31 May 2024 amending Directive 2013/36/EU (CRD VI) (Link), Recital 42.

establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority); and Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority)) - 'the ESAs' Regulations'. In accordance with Article 16(3) of the ESAs' Regulations, competent authorities and financial institutions must make every effort to comply with the Guidelines.

11. Joint Guidelines set out the ESAs' view of appropriate supervisory practices within the European System of Financial Supervision or of how Union law should be applied in a particular area. Competent authorities to whom the Joint Guidelines apply should comply by incorporating them into their supervisory practices as appropriate (e.g. by amending their legal framework or their supervisory processes), including where the Joint Guidelines are directed primarily at financial institutions.

Reporting Requirements

12. In accordance with Article 16(3) of the ESAs' Regulations, competent authorities must notify the respective ESA whether they comply or intend to comply with these Joint Guidelines, or otherwise with reasons for non-compliance, by dd.mm.yyyy (two months after issuance). In the absence of any notification by this deadline, competent authorities will be considered by the respective ESA to be non-compliant. Notifications should be sent to [compliance@eba.europa.eu, compliance@eiopa.europa.eu and compliance@esma.europa.eu] with the reference 'JC/GL/2025/78'. A template for notifications is available on the ESAs' websites. Notifications should be submitted by persons with appropriate authority to report compliance on behalf of their competent authorities.

13. Notifications will be published on the ESAs' websites.

Title I - Subject matter, scope and definitions

14. These Joint Guidelines aim to clarify how competent authorities should consistently integrate ESG risks into their supervisory stress testing activities.

15. These Joint Guidelines are addressed to competent authorities.

16. Competent authorities should apply these Joint Guidelines when performing supervisory stress tests focusing on ESG risks, either as part of the relevant regulatory framework or as an ad-hoc assessment, in each case only where applicable according to the sectoral legislation.

17. Unless otherwise specified, the terms used in these Joint Guidelines have the same meaning as in the sectoral legislation listed below.

18. In addition, for the purposes of these Joint Guidelines, the following definitions apply:

i. 'competent authority' means any of the following:

a) the competent authorities identified in Article 4(2), point (i) of Regulation (EU) No 1093/2010 establishing the European Banking Authority ("EBA");

b) the competent authorities identified in Article 4(2), point (i) of Regulation (EU) No 1094/2010 establishing the European Insurance and Occupational Pensions Authority ("EIOPA"), namely the supervisory authorities defined in Directive 2009/138/EC on the taking up and pursuit of the business of insurance and reinsurance;

ii. 'sectoral legislation' means collectively:

(a) Directive 2013/36/EU of the European Parliament and of the Council ([2]);

(b) Directive 2009/138/EC of the European Parliament and of the Council ([3]);

(c) Regulation (EU) 575/2013 of the European Parliament and of the Council ([4]).

([2]) Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (OJ L 176, 27.6.2013, p. 338, ELI: http://data.europa.eu/eli/dir/2013/36/oj).

([3]) Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (OJ L 335, 17.12.2009, p. 1, ELI: http://data.europa.eu/eli/dir/2009/138/oj).

([4]) Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (OJ L 176, 27.6.2013, p. 1, ELI: http://data.europa.eu/eli/reg/2013/575/oj).

Title II- Requirements regarding consistency, long-term considerations and common standards for assessment methodologies in stress testing of ESG risks

Objectives

19. Pursuant to the sectoral legislation, competent authorities should implement these Joint Guidelines in accordance with the principle of proportionality[5].

20. Competent authorities should consider all ESG risks and their potential evolution when designing their framework for supervisory stress testing and keep under review the relevance of ESG risks to such framework, especially while progressing towards gradual extension of the coverage to other ESG factors Competent authorities should precisely define their objectives when performing ESG stress testing, considering two main types of stress testing exercises:

    - testing the robustness of capital and liquidity position and the loss-absorption capacity of financial entities in the face of economic and financial shocks linked to all material risks including ESG risks over a short-term horizon (e.g. up to five years);
    - testing the resilience of financial entities' strategy and business model to a range of ESG-related scenarios over a long-term (at least 10 years[6]) horizon.

Materiality assessment

21. Competent authorities should adopt a risk-based approach, starting with a materiality assessment to identify the most relevant and impactful risks and determine which of those material risks should be part of a stress test exercise's scope.

22. As part of the materiality assessment, competent authorities should identify which ESG risks are most material to financial entities, considering their business model, portfolios, geographic exposures, and sectoral activities over a short- to long-term horizon. Competent authorities should consider, over the different time horizons, both:

    - the exposure of assets and liabilities to transition risks (for example, based on their carbon footprint) and physical risks (for example, based on their geographical location); and
    - the potential impacts of ESG factors on the traditional categories of financial risks, i.e. market risk, credit risk, counterparty risk, underwriting risk, as well as operational risk, reputational risk and strategic risk through the identification of the main transmission channels.

[5] As these guidelines are addressed to competent authorities, the application of proportionality should follow the proportionality requirements laid down in sectoral legislation.

[6] In accordance with the objectives enshrined in the Paris Agreement (2015).

23. Competent authorities should consider using clear qualitative and/or quantitative criteria and/or thresholds for materiality, leveraging existing regulatory frameworks, industry standards, and supervisory experience. The materiality assessment should allow for adjustments over time as ESG risks evolve, new data becomes available, and financial entities refine their own risk identification processes.

Gradual extension of the scope of ESG factors in ESG stress testing

24. Competent authorities are encouraged to continue their efforts and research to gradually extend the coverage toother ESG factors in the implementation of ESG stress tests, initially prioritising environmental risks. In a first phase, competent authorities should focus on climate and environmental risks, addressing both physical risks (e.g., extreme weather events, biodiversity loss) and transition risks (e.g., policy shifts, market re-pricing) aiming to distinguish impacts, even if indirect, on the main risk exposures.

25. This gradual roll-out should be accompanied by continuous methodological refinement, capacity building, and stakeholder engagement, ensuring that financial entities and competent authorities are adequately prepared for the expanding scope of ESG risk assessments.

Integration of ESG factors into existing stress testing frameworks

26. Competent authorities should aim to fully integrate ESG factors into overall stress testing framework.

27. Competent authorities should review and reconsider as appropriate the types of ESG risks covered, also based on how the availability of data and the use of models develop over time.

Interconnection/spillover between financial sectors

28. Although these Joint Guidelines do not cover system-wide financial sector stress testing, competent authorities should, where possible, coordinate across financial sectors to ensure a consistent approach to ESG risk assessment and facilitate data sharing where appropriate. The banking, insurance, and securities regulators should collaborate with a view to help identify and model transmission channels (for instance the role of insurance on banks loans collaterals), align scenario assumptions, and prevent regulatory blind spots.

29. Competent authorities should ensure, to the extent possible, that ESG stress tests account for interconnections and spillover effects between financial sectors. They should consider how ESG-related risks can propagate through the financial system, amplifying vulnerabilities across banking, insurance, asset management, and other financial sectors.

Principles and methodological considerations

30. When determining the principles and methodological considerations, competent authorities should decide on the most suitable design and features of the stress test based on its intended objectives.

Scope

31. Competent authorities should clearly define the coverage in terms of portfolios, sectors, geographies, and activities to ensure a balanced and pragmatic approach that reflects the maturity of available methodologies and data.

32. For cross-border financial groups, competent authorities should ensure that all relevant entities are included in the assessment.

33. Based on the objective and the time horizon involved, competent authorities should ensure that the balance between quantitative and qualitative information is adequate for the purpose of the exercise[7].

Time horizon

34. The choice of the time horizon should be aligned with the intended objective of the exercise:

- When assessing financial resilience to adverse but plausible shocks, a short-term horizon (e.g. up to 5 years) should be used, in line with traditional stress testing practices;
- When assessing the resilience of financial entities' business model and strategy a longer-term horizon (at least 10 years, depending on the business activity and in line with financial entities' long-term commitments) should be adopted.

Scenario design

35. Competent authorities should identify and select stress test scenarios based on the objectives of the exercise. They should consider the use of scenarios based on the most recent scientific knowledge and elaborated by widely recognised international or regional organisations[8]They are also encouraged to leverage sectoral and regional trajectories to provide financial entities with an

[7] Given the assumption needed on the scenario calibration and modelling issues, as a general principle, the longer the time horizon, the higher the reliance on more qualitative rather than quantitative information (e.g., no accurate recalculation of capital and solvency metric is expected on a long-term horizon).

[8] E.g. for climate risks: the Intergovernmental Panel on Climate Change (IPCC), the Network for Greening the Financial System (NGFS), the International Energy Agency (IEA), the United Nations Environment Programme (UNEP), the Joint Research Center of the EU Commission (EU JRC) or national government or non-government bodies;

adequate breakdown of macroeconomic variables, while maintaining the overall internal consistency of the scenarios.

36. Wherever possible, competent authorities should consider the integration of compound risks, i.e., the additional impact arising from the simultaneous or successive occurrence of multiple shocks (whether ESG-related or broader macroeconomic shocks). Additionally, and where relevant, they should strive to assess second-round effects, meaning the indirect and amplified consequences that result from the initial ESG shocks, either by incorporating them directly into the scenarios or as a complementary analysis.

37. With the aim of integrating material ESG risks into short-term stress testing exercises, competent authorities should, where feasible and appropriate, build on the scenario design used in traditional stress tests, adapting it to reflect ESG-specific transmission channels and incorporating new variables relevant to ESG risks.

38. When performing longer-term ESG stress testing, competent authorities should consider several distinct scenarios covering the broad spectrum of possible futures and levels of severity (e.g. including tipping points). The reference scenario may draw on the financial entity's own central scenario, which can serve as a benchmark to test the impacts of alternative, materially different trajectories on strategy and business model resilience (e.g., via risk-adjusted profitability estimates).

39. Depending on the sophistication of the approach, scenarios may take the form of simple narratives or more detailed quantitative projections.

40. Competent authorities may decide to apply the same scenarios to all financial entities for comparability or to tailor scenarios to specific categories of financial entities, considering their risk profiles and business models.

Top-down vs. bottom-up approaches

41. Competent authorities should assess the merits of a top-down versus bottom-up approach, selecting the most suitable method based on the specific objectives, the maturity of financial entities in ESG stress testing, and the nature of exposures covered by the assessment, taking into account the following considerations:

    - A top-down approach, where competent authorities centrally calculate the impacts of the stress test scenarios, ensures a certain degree of comparability across financial entities and provides competent authorities with stronger control over the process and methodology, reducing the burden for the industry.
    - A bottom-up approach, where financial entities calculate the impact of the stress test scenarios themselves, offers higher level of granularity, allowing to capture idiosyncratic elements specific to some portfolios, counterparties, and exposures. It also fosters greater

involvement in the stress testing process and helps enhance financial entities' capacity building.

42. When using a bottom-up approach, competent authorities should establish clear methodological frameworks to ensure consistency and level playing field across financial entities, including proportionality considerations regarding the expectations on the sophistication of their calculation of impact.

43. A hybrid approach could be considered, leveraging the strengths of both methodologies. Competent authorities may decide on the appropriate approach based on data availability and model ownership, taking into account that specific portfolios or activities, such as e.g., underwriting risk, might require more detailed data and modelling than feasible under a top-down approach.

Level of granularity

44. In deciding on the level of granularity, competent authorities should strike an appropriate balance between simplicity and precision, taking into account data availability, quality and methodological maturity. More granular data might be needed to, for example, appropriately capture activity- or entity-level impacts of transition risk or regional/local impacts of physical risks.

45. At a minimum, competent authorities should consider the following granularity dimensions:

    a. Portfolio level: Differentiation by asset class (e.g., corporate loans, mortgages, sovereign exposures, equity and corporate bond holdings).
    b. Sectoral level: Classification based on industry sector (e.g., high-carbon industries, energy, real estate, agriculture). For specific sectors a higher granularity may be explored (e.g., electric power, sector impacted by a breakthrough technology, fossil fuel-based industries). For real estate, a distinction between commercial and residential real estate exposures may be explored.
    c. Geographical level: Distinction by region (e.g. NUTS level 3) to assess exposure to location-specific ESG risks, particularly physical risks.
    d. Counterparty level: Granularity by individual obligor or groups of obligors where concentration risks are significant.
    e. Risk category: Separate identification of physical risks (acute and chronic climate hazards), transition risks (policy, technology, and market shifts), and other environmental, social, and governance factors (e.g., biodiversity loss, pollution, social and governance risks).

46. Competent authorities should decide on the appropriate level of data granularity depending on the type of asset/portfolio and the objective of the exercise. For example, for sovereign exposures country-level could be sufficient, while for lending or underwriting portfolios at least regional granularity up to geolocation data should be explored to assess physical risk.

47. For the analysis of funds, competent authorities may consider, when possible and consistent with the applicable sectoral regulation using a look through approach with regard to holdings of funds.

Balance sheet assumptions

48. For ESG stress tests, competent authorities should start by using a static balance sheet approach, which is commonly applied in traditional stress tests. However, they may consider the structural impacts of financial entities' transition plan, where feasible and applicable, depending on the time horizon.

49. For exercises with medium to long term time horizons, a dynamic balance sheet (with or without constraints) approach could be applied to ensure greater realism, potentially focusing on the main balance sheet items, reflecting changes in portfolio composition (evolving exposures, asset reallocations and risk-mitigating actions in response to ESG-related shocks).

50. Given the uncertainties surrounding transition pathways, policy developments, and market reactions, competent authorities should consider requiring financial entities to justify their planned responses, ensuring that balance sheet adjustments — such as portfolio reallocation, changes in lending or underwriting policies, or shifts in funding structures — are realistic and consistent with their publicly disclosed transition strategies.

51. Any management actions recognised by financial entities should be assessed based on their feasibility, timeliness, and potential unintended consequences, avoiding excessive reliance on optimistic assumptions. Competent authorities should ensure that a dynamic balance sheet approach with constraints enhances the realism and forward-looking nature of ESG stress tests through incorporating credible plans and managerial responses, while maintaining minimum safeguards against excessive flexibility in assumptions and enhancing comparability in stress test results.

Sample of financial entities

52. Competent authorities should define the appropriate sample of financial entities to participate in ESG stress testing and/or ESG scenario analysis, ensuring sufficient sectorial/market coverage, taking into account the specified objectives and, in the case of thematic assessments, the focus of the exercise. The design of the stress test should be adapted, where necessary, to reflect the characteristics of different categories of financial entities.

53. Competent authorities should also consider conducting targeted exercises on specific subsets of entities to address particular vulnerabilities or evolving ESG risk trends.

Proportionality

54. Competent authorities should apply proportionality principles, allowing for methodological simplifications in relation to the size, nature, and complexity of financial entities' activities, as well as the materiality of the risks . The proportionality principle should extend to reporting requirements, scenario design, and modelling expectations, ensuring an adequate balance between analytical robustness and practical feasibility.

55. Given the early-stage of development of ESG stress test modelling and data availability, competent authorities may consider limiting the scope of the analysis, ensuring an adequate cost-benefit balance both for competent authorities and the financial entities.

Model limitations

56. Competent authorities should recognise that all models have inherent limitations, and this applies especially to evolving ESG models. In the case of bottom-up stress test, to mitigate these limitations, and to enhance the robustness and credibility of ESG stress testing and resilience analysis, they should employ complementary analysis to cross-validate results and ensure their plausibility, use benchmarking techniques, and cross-validate results with alternative methodologies.

Organisational and governance arrangements

Allocation of resources

57. Competent authorities should ensure that sufficient and adequate human and material resources are allocated to the process. This includes permanent or ad-hoc involvement of staff with expertise in ESG risk assessment, stress testing methodologies, and financial supervision.

58. Competent authorities should have data management and collection capabilities that support access to high-quality ESG data. They should also develop and maintain IT infrastructure that allows for efficient data collection, determining adequate scenario, and result analysis.

Timelines for the exercise

59. Competent authorities should set appropriate timelines for conducting ESG stress tests and scenario analyses, balancing the need for completeness and accuracy with requirements of the decision-making process. Financial entities should be given sufficient preparation time to compile relevant information and conduct their assessments while enabling competent authorities to perform a comprehensive review and ensure accurate reporting.

60. The process should be structured to facilitate efficient analysis, consistent communication of findings, and integration into the broader supervisory framework.

Data collection

61. For top-down exercises, competent authorities should rely, as much as possible, on regulatory reporting and leverage existing disclosure frameworks and external resources where relevant. They may consider ad-hoc data collections as a necessary complementary source of information. Collected information should be limited to the one used for the analyses and validation.

62. Where data gaps exist, competent authorities should promote the use of reasonable proxies, estimates, and expert judgment, while encouraging financial entities to improve internal data capabilities over time.

Quality assurance process

63. A rigorous quality assurance process should be implemented to verify the accuracy, consistency, and reliability of stress test results. Competent authorities should establish review mechanisms (e.g. benchmarking or peer reviews) to assess data quality, methodology robustness, and, where appropriate, scenario adequacy. Where necessary, expert judgment should complement quantitative findings to mitigate model limitations.

Effective dialogue with financial entities

64. Competent authorities should maintain effective and structured dialogue with financial entities throughout the stress testing process. This includes providing clear guidance on expectations, facilitating engagement at key stages, and ensuring that financial entities have the opportunity to clarify methodological aspects. Regular interaction will enhance the credibility of the exercise and improve financial entities' ability to incorporate ESG risk considerations into their own risk management frameworks.

Cross-border and system-wide coordination

65. Where relevant and possible, competent authorities should coordinate across jurisdictions to allow a harmonised approach to ESG stress testing for cross-border financial groups. This includes collaboration with other supervisory authorities to align methodologies, share best practices, and avoid regulatory fragmentation.

66. When relevant, system-wide coordination should also be pursued to ensure that ESG stress tests account for broader financial stability risks and potential spillover effects across sectors.

Integration into the supervisory process

67. ESG stress test results should be, to the extent possible, integrated into the broader supervisory process. As methodological aspect and availability of data develop over time, competent

authorities should use the findings to inform risk assessments, capital adequacy reviews, and/or strategic discussions with financial entities.

68. The results should also guide supervisory follow-up measures and policy recommendations where ESG risks are identified as likely to pose material threats to financial stability.

Public disclosure of information

69. Publication of results should be in line with relevant sectoral regulation and supervisory practice. When choosing to publish results, competent authorities should weigh up the comparative benefits of publishing individual or aggregate results. The level of disclosure should be calibrated based on the reliability of the methodology and the quality of the data. Competent authorities should consider that transparency enhances market discipline, stakeholder confidence, and accountability. They should also ensure that information is interpreted correctly and does not lead to unintended market distortions. Disclosure can increase as results become more robust.

Regular review and evolution of ESG stress testing

70. Given the evolving nature of ESG risks and stress testing methodologies, competent authorities should regularly review and refine their stress testing frameworks. Lessons learned from previous exercises should be incorporated into the following ones, and updates should reflect emerging best practices, new regulatory requirements, and advancements in ESG data and modelling techniques.

Title III- Implementation

71. These Joint Guidelines apply from 1 January 2027

4. Accompanying documents

4.1 Impact assessment

Objectives

1. The European Commission has launched a set of initiatives to enhance the resilience and contribution of the financial sector. As a result, several efforts have been initiated to incorporate ESG risks into prudential supervision.

2. As per Article 16(2) of the ESAs regulation (Regulation (EU) No 1093/2010, (EU) No 1094/2010 and (EU) No 1095/2010 of the European Parliament and of the Council), any guidelines developed by the ESAs shall be accompanied by an Impact Assessment (IA) annex which analyses 'the potential related costs and benefits' of the guidelines. Such annex shall provide the reader with an overview of the findings as regards the problem identification, the options identified to remove the problem and their potential impacts.

3. The ESAs have prepared the impact assessment included in this consultation paper analysing the policy options considered when developing the guidelines. Given the nature of the study, the impact assessment is qualitative in nature.

   In drafting these guidelines, the ESAs stick to the general objectives of the CRD and the Solvency II Directive. These general objectives include:
   - financial stability;
   - effective functioning of the internal market.

4. The recently revised Solvency II Directive includes the following legal mandate (Article 100(4) of CRD VI and Article 304c(3) second subparagraph of the Solvency II Directive): "*EBA, EIOPA and ESMA shall, through the Joint Committee referred to in Article 54 of Regulations (EU) No 1093/2010, (EU) No 1094/2010 and (EU) No 1095/2010, develop guidelines to ensure that consistency, long-term considerations and common standards for assessment methodologies are integrated into the stress testing of environmental, social and governance risks. The Joint Committee shall publish those guidelines by 10 January 2026. EBA, EIOPA and ESMA shall, through that Joint Committee, explore how social and governance-related risks can be integrated into stress testing*".

5. In view of the specific purpose of these guidelines, the following more specific objectives were identified:

- The guidelines should specify the framework to ensure a consistent application of ESG stress tests when they are carried out by competent authorities. However, the guidelines will not include a requirement for competent authorities to carry out their own stress test.[9]
- The guidelines should contribute to enhancing consistency among the whole financial sector in ESG stress testing/scenario analysis.

1. Policy issues

6. ESG risks are by now widely recognized as an important source of risk for the financial sector and can adversely affect the safety and soundness of individual financial entities and the wider financial system.

7. It is therefore increasingly relevant to the ESAs mandate to monitor and assess the resilience of the European financial sector to adverse developments and the materialisation of ESG risks. Stress testing and scenario analysis are important tools to better understand and assess potential financial and economic risks stemming from ESG risks given the high-level of uncertainty involved and the long-term nature of e.g. climate scenarios, and to ensure that the financial system is resilient to these risks.

2. Policy options

8. As a benchmark against which the policy options are assessed a “baseline scenario” option is introduced, as follows.
9. The current frameworks under the ESAs’ remit do not specify any guidelines about how competent authorities shall perform ESG stress tests/scenario analyses to assess financial entities’ financial and business model resilience. As a result, competent authorities may follow different approaches when conducting ESG stress tests/scenario analyses which could create divergencies in they are defined, designed and incorporated into supervisory stress testing frameworks. Such a situation complicates supervisory convergence, and these guidelines are meant to fill the potential gaps to ensure that both competent authorities and financial entities are prepared and resilient to the potential materialisation of ESG risks.

10. The guidelines focus on supervisory stress testing, which encompasses both traditional short-term stress tests targeting capital and/or liquidity adequacy, as well as scenario analysis, assessing also resilience of financial entities’ strategy and business model to a range of ESG-related scenarios also over a longer-term horizon. Both types of exercises are essential tools for effective risk management and micro- and macro-prudential supervision.[10]

3.1 Policy Issue A: Scope of the guidelines

[9] For example, for Solvency II (insurance), the guidelines would be of a conditional nature for NCAs: the guidelines would only be relevant for them, if they perform national stress tests. NCAs not performing national stress test should not apply the joint guidelines.

[10] While a scenario describes a consistent future state of the world over time, resulting from a plausible and possibly adverse set of events or sequences of events, a stress test provides an assessment of an extreme scenario, usually with a severe impact on a financial entity, reflecting the inter-relations between its significant risks.

11. Defining the expectations for supervisory stress testing to assess financial entities' resilience to the negative impacts of climate but also of other ESG risks is an ambitious target, considering the limited maturity of stress test/scenario analysis work beyond climate risks. Therefore, while developing these guidelines, the ESAs have analysed three possible options.

    - POLICY OPTION A.1: Focus equally on all three aspects of ESG risks.
    - POLICY OPTION A.2: Focus on environmental risks and especially climate (E) only.
    - POLICY OPTION A.3: Focus on environmental risks and especially climate (E), while giving guidance on the remaining environmental, social, and government factors.

12. ESG risks include environmental, social and governance factors. Article 100(4) of the CRD and Article 304c(3) of the Solvency II Directive mandate the ESAs to issue guidelines on ESG stress testing for the full scope of these risks.

13. The development of relevant regulation, disclosure frameworks, practices, as well as models and data is more advanced for environmental risks, especially linked to climate, than for other ESG factors. Although it is important to continue the development of risk management practices, stress testing and scenario analysis for ESG factors beyond environmental and climate risks, it is also important to allow sufficient time for the financial sector, including competent authorities, to introduce the necessary changes.

14. In order to reduce the burden for financial entities and competent authorities, it is considered that the guidelines should focus primarily on climate risk, while introducing some guidance on other ESG aspects. Therefore, the Policy option A.3: "Focus on environmental risks and especially climate (E), while giving guidance on the remaining environmental, social, and government factors", is identified as the preferred option.

3.2 POLICY ISSUE B: PROPORTIONALITY

15. Financial entities may be subject to many ESG risks with different levels of materiality for supervisory purposes. To ensure that proportionality is maintained in stress testing frameworks, both for competent authorities and for financial entities, the ESAs have analysed two possible options related to proportionality and materiality.

    - POLICY OPTION B.1: Mandate competent authorities to cover all risks associated with ESG risks.
    - POLICY OPTION B.2: Mandate competent authorities to focus on the most material ESG risks.

16. A good materiality assessment is essential to enable competent authorities to optimise the cost/benefit balance for their supervisory stress testing framework, therefore Policy option B.2 is identified as the preferred option.

4.2 Feedback on the public consultation

The ESAs publicly consulted on the draft proposal contained in this paper. The consultation period lasted for 12 weeks and ended on 19 September 2025. 25 responses were received, of which 24 were published on the ESAs' websites.

In terms of feedback received from the ESAs relevant Stakeholder Groups, the responses received include the one submitted by the Insurance and Reinsurance Stakeholder Group (IRSG).

This section presents a summary of the key points and comments arising from the consultation, the analysis triggered by these comments and, where necessary, the changes made to address them.

In several instances, stakeholders made similar comments in the response to different questions. In such cases, the comments and the ESAs' analysis are included in the section that the ESAs considered most appropriate.

Changes to the draft Joint Guidelines have been incorporated as a result of the responses received during the public consultation.

Summary of key issues and the ESAs' response

Topic	Summary of comments received	ESAs analysis	Amendments to the consultation proposal
Materiality assessment	Stakeholders highlighted that in relation to materiality assessment, the application of an approach focusing solely on relative exposure is insufficient for ESG risks. They argued that it would disregard low-exposure activities that pose significant absolute financing amounts and systemic risks, urging for an approach that considers the broader, sector-wide impacts.	The ESAs have clarified that the materiality assessment must adopt a forward-looking perspective that goes beyond traditional relative exposure measures.	Some adjustments to the wording used in the Joint Guidelines have been implemented, but it remains consistent with the intention that the Guidelines must be designed to facilitate cross-sectoral use while minimizing the increase in reporting burden for financial entities and for CAs to which the Joint Guidelines ultimately apply.
Objectives	Stakeholders highlighted that ESG stress testing should be used to identify the magnitude of climate and other ESG risks in the financial system. The exercise should go beyond simply assessing risk for individual institutions and focus on quantifying the systemic build-up of risks and informing the design of effective macro-prudential tools and policy responses. In relation to the topic of proportionality, Stakeholders widely emphasised the importance of proportionality. For example, some stakeholders argued for a differentiated approach for smaller, less complex institutions, allowing for phased	The ESAs agree on the crucial role of the stress test in providing system-wide insights and agree that the exercise must go beyond the assessment of individual institutions. In relation to proportionality, the ESAs acknowledge the comments raised.	Some minor changes have been implemented in the overall objectives, notwithstanding that ESAs viewed the text as already capturing most aspects raised by stakeholders. In relation to proportionality, the drafting has been improved to capture the concerns raised by stakeholders always in the spirit of facilitating cross-sectoral use while minimising the increase in reporting burden for financial entities and for CAs to which the Joint Guidelines ultimately apply.

	adoption, simpler qualitative methods, and a scope limited to the most material portfolios, to avoid imposing an excessive administrative burden.		
Scope and time horizon	Stakeholders emphasised that the time horizon for the ESG (and more specifically in relation to climate) stress test must be significantly longer than those used in standard financial stability or micro-prudential stress tests. In their feedback, stakeholders highlighted the necessity of considering a long-term view. A central argument was that climate change risks (both transition and physical) are systemic and slow-moving, with their materialization occurring over at least several decades. Traditional horizons (e.g., 3-5 years) would fail to capture the real economic and financial impact. Furthermore, the majority of stakeholders explicitly recommended setting the minimum time horizon for the exercise at 25 years. In relation to capturing transition risk, stakeholders flagged that a longer horizon is necessary to properly assess transition risk, which depends on policy changes, technological developments, and market shifts that evolve over decades. Using a	The ESAs acknowledge the critical nature of the long-term horizon for climate risk and have further reviewed the other sources of Regulation mentioned by stakeholders across their comments.	The drafting has been improved to better capture this aspect, including a long-term time horizon of at least 10 years. This amendment made it possible to capture stakeholders' concerns and, at the same time, align with existing sectoral regulation on the topic. This change still ensures that the Joint Guidelines retain a high-level focus to ensure broad applicability across different sectors and maintain a proportionate approach to industry burden.

	shorter period risks underestimating the future value changes of high-carbon assets. In addition, stakeholders also flagged a long-term horizon is also crucial for capturing physical risk, as the probability and severity of climate-related events (e.g., floods, heatwaves) increase significantly in the medium-to-long term. Stakeholders noted that scenarios recognized by supervisors (e.g. those from the NGFS) often already incorporate long-term elements (e.g., up to 2050). The stress test horizon should align with these established models to be meaningful. With reference to the topic of Risk of Early Materialization, some comments specifically cautioned that relying solely on currently recognized scenarios might be too conservative, suggesting that climate risks could materialise earlier than currently anticipated. Therefore, stakeholders emphasised that a sufficiently long horizon is needed to ensure the exercise captures the full scope of potential systemic risk.		
Scenario design and application	Stakeholders highlighted that in relation to Scenario design and application, the stress tests should go beyond recognised	The ESAs acknowledge the comments raised by stakeholders and agree with the overall necessity to adopt a	As a result of the assessment, no changes have been implemented, as the text was already capturing the aspects raised by

	scenarios used by supervisors, as they may underestimate the speed at which climate and social events might occur. It was recommended that a precautionary and conservative approach be adopted when data or methodologies are insufficient.	precautionary and conservative approach that takes into account the fact that data and methodologies are sometimes insufficient or not enough developed.	stakeholders. This approach takes into account the need for the Guidelines to be high-level for cross-sectoral use and prevents an unreasonable increase in compliance effort for the industry, including CAs to which the Joint Guidelines are addressed.
Top-down and bottom-up approaches	Stakeholders overall welcomed the approach taken in the Joint Guidelines in relation to Top-down and bottom-up approaches.	The ESAs acknowledge the support received.	As a result of the assessment, no changes have been implemented.
Level of granularity	Stakeholders highlighted that in relation to Level of granularity, a highly granular approach is needed for a comprehensive ESG stress test. This granularity should include the entire supply chain (per sector and geographical location), the transition plans of counterparties, and the vulnerability of technology to climate change.	The ESAs fully concur that a highly granular approach is essential. However, it must be noted that this necessary level of detail should be carefully balanced with the core goal of maintaining a high-level framework in the Joint Guidelines that ensures cross-sectoral applicability and manages the reporting burden on the industry.	As a result of the assessment, no changes have been implemented.
Balance sheet assumptions	Stakeholders overall welcomed the approach taken in the Joint Guidelines in relation to balance sheet assumptions.	The ESAs acknowledge the support received.	As a result of the assessment, no changes have been implemented.
Principles and methodological considerations	In relation to Principles and methodological considerations, Stakeholders reinforced the need for more comprehensive, forward-looking, and conservative methodologies that account	The ESAs have carefully considered the examples and references brought by stakeholders in the feedback to the Public Consultation and agree on the need for the Joint Guidelines to ensure that the final methodology incorporates	Considering the current drafting, the ESAs concluded that the Joint Guidelines are sufficiently high-level for cross-sectoral application and do not unduly increase the existing burden on market participants. No major drafting amendments have

	for all relevant ESG elements and a longer time horizon.	the forward-looking and conservative principles.	therefore been implemented in this context.
Organisational and governance arrangements	Stakeholders overall welcomed the approach taken in the Joint Guidelines in relation to governance arrangements. Stakeholders also highlighted that, in relation to this topic, institutions should have sufficient internal expertise to conduct effective ESG stress testing and ensure a robust process. They stressed the importance of clear roles and responsibilities for the implementation and oversight of the stress test results within the governance structure.	The ESAs acknowledged the support received and the feedback provided.	Considering the current drafting, the ESAs concluded that the Joint Guidelines are sufficiently high-level for cross-sectoral application and do not unduly increase the existing burden on market participants. No major drafting amendments have therefore been implemented in this context.