ESMA
European Securities and Markets Authority

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Discussion Paper

on the integrated collection of funds' data

Responding to this paper

ESMA invites comments on all matters in this paper and in particular on the specific questions summarised in Annex 1. Comments are most helpful if they:

1. respond to the question stated;
2. indicate the specific question to which the comment relates;
3. contain a clear rationale; and
4. describe any alternatives ESMA should consider.

ESMA will consider all comments received by **21 September 2025.**

All contributions should be submitted online under the relevant consultation.

Publication of responses

All contributions received will be published following the close of the consultation, unless you request otherwise. Please clearly and prominently indicate in your submission any part you do not wish to be publicly disclosed. A standard confidentiality statement in an email message will not be treated as a request for non-disclosure. A confidential response may be requested from us in accordance with ESMA's rules on access to documents. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by ESMA's Board of Appeal and the European Ombudsman.

Data protection

Information on data protection can be found at www.esma.europa.eu under the heading 'Legal Notice and Data protection'.

Who should read this paper?

This Discussion Paper will be of interest to stakeholders involved in supervisory and statistical reporting. In particular, it targets alternative investment fund managers (AIFMs), UCITS management companies, UCITS investment companies, and branches of EU and non-EU fund managers. It is also relevant to industry associations as well as any other entities involved in the reporting process or affected by its outcomes.

Table of Contents

Executive Summary

Reasons for publication

Directive (EU) 2024/927, amending the AIFM and UCITS Directives (Directive 2011/61/EU and Directive 2009/65/EC), was published in the Official Journal of the European Union on 26 March 2024 and entered into force on 15 April 2024.

Under Article 69a of AIFMD and Article 20b of UCITS Directive, the European Securities and Markets Authority (ESMA) is mandated to submit a report to the European Commission by 16 April 2026, outlining the development of an integrated reporting system of supervisory data.

ESMA has prepared this Discussion Paper (DP) in order to consult interested parties for the purpose of informing its decisions when developing the recommendations that will form the final report.

Contents

Section 2 presents a preliminary stocktake of the current state of asset managers' reporting obligations at both the EU and national level.

Section 3 assesses the overlaps and inconsistencies between the identified reporting frameworks.

Section 4 presents several options to further integrate the reporting obligations for fund managers under different regimes.

Section 5 details the main priorities in order to achieve further integration in the field of funds reporting, including:

- Concentrating on elements with high added-value
- The choice of data semantics
- Different options for reporting flows and data sharing arrangements
- Different options of reporting formats and systems
- The choice of reporting frequency

Annex 1 contains the full list of questions in this Discussion Paper

Annex 2 details the current EU-level asset management reporting frameworks; Annex 3 the current national reporting frameworks; and Annex 4 the current statistical reporting frameworks.

Annex 5 presents a comparison of asset management reporting frameworks; Annex 6 presents the main overlaps detected and Annex 7 the main data point gaps.
Annexes 8 and 9 focus on the main data semantics gaps.
Annex 10 presents a list of indicative reporting fields identified as useful for future reporting templates.
Annex 11 details some of the EU-level initiatives towards producing a comprehensive data dictionary.
Annex 12 presents the Centralised Securities Database (CSDB)
Annex 13 details the entities on which asset managers currently report.
Annex 14 presents a stocktake of share class reporting.
Annex 15 details the current use of data standards and identifiers across reporting regimes.
Annex 16 presents the different reporting frequencies.

Next Steps

ESMA will consider the feedback it received to this discussion paper in Q4 2025 and expects to submit a report on the development of an integrated collection of supervisory data to the European Commission in Q2 2026.

1 Introduction

1.1 Legal Background

1. On 15 December 2021, the European Commission adopted the Strategy on supervisory data in EU financial service[1]. The strategy aims to modernise supervisory reporting across the EU by establishing a system capable of delivering accurate, consistent, and timely data to both national EU supervisory authorities, while reducing the overall reporting burden.

2. As part of this initiative, Directive (EU) 2024/927[2], amending the AIFM[3] and UCITS[4] Directives (Directive 2011/61/EU and Directive 2009/65/EC), was published in the Official Journal of the European Union on 26 March 2024 and entered into force on 15 April 2024. The objective is to enhance reporting requirements across the asset management sector.

3. Under Article 69a of AIFMD and Article 20b of UCITS Directive, ESMA is mandated to submit a report to the European Commission by 16 April 2026, outlining the development of an integrated reporting system of supervisory data.

1.2 Objectives of the report

4. The purpose of this report is to assess the current supervisory reporting landscape in the asset management sector and to propose recommendations to improve its efficiency, consistency, and effectiveness.

5. A key focus will be identifying and addressing areas of duplication and inconsistency between reporting frameworks in the asset management sector and the broader financial sector. ESMA will also assess how to enhance data standardisation and promote more effective sharing and use of data already reported under existing EU frameworks by relevant authorities.

6. In addition, the report will serve as a basis for developing future regulatory and implementing technical standards under both reporting regimes. These standards will specify what information must be reported, define the appropriate level of detail and standardisation, and set out clear requirements for timing, frequency, format,

[1] eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0798
[2] Directive (EU) 2024/927 of the European Parliament and of the Council of 13 March 2024 amending Directives 2011/61/EU and 2009/65/EC as regards delegation arrangements, liquidity risk management, supervisory reporting, the provision of depositary and custody services and loan origination by alternative investment funds
[3] CL2011L0061EN0070010.0001_cp 1..1
[4] CL2009L0065EN0110010.0001_cp 1..1

and submission methods. In addition, the technical standards will define the templates to be used for regular reporting as well as for reporting in exceptional situations and the identifiers to be used to link data.

7. The report will place particular emphasis on the objective of reducing the reporting burden for entities in the asset management sector by outlining how enhanced data sharing among competent authorities, together with the effective application of the "report once" principle, can improve the efficiency of the reporting process. By identifying opportunities to simplify reporting requirements and promote greater reuse of reported data, the report will contribute to a more proportionate and streamlined reporting framework across the sector.

8. To achieve these objectives, ESMA has prepared this discussion paper as a basis for further engagement with stakeholders and to gather additional evidence and perspectives. The paper outlines a broad range of issues considered relevant for the forthcoming report on integrated reporting. The final report will be developed taking into account the feedback received through this consultation process.

9. It should be noted that ESMA has commenced, under the mandate included in Article 26 of MiFIR, work on a comprehensive approach for the simplification of financial transaction reporting, which is subject to a call for evidence in parallel to this discussion paper. While the considerations raised in this discussion paper are based on the existing frameworks, the work on integrated reporting under AIFMD and UCITS will take into account, where available, the outcome of the work on the financial transaction reporting.

10. In this context, responses should align with the broader principles of reducing reporting burden, enhancing data sharing, and supporting the effective implementation of the "report once" principle. Such alignment is essential in ensuring that the future reporting framework is designed to meet supervisory needs in an efficient and coordinated manner.

1.3 Stakeholders' involvement

11. This discussion paper has been prepared in close collaboration with relevant public authorities. It leverages, inter alia, on a questionnaire prepared by ESMA on fund reporting to gather input from national competent authorities (NCAs), the ECB and national central banks (NCBs), the European Banking Authority (EBA) and the European Insurance and Occupational Pensions Authority (EIOPA).

12. In addition, in the preparation of this Discussion Paper, ESMA has engaged with stakeholders, including through exchanges with the CWG RWG (Consultative

Working Group for the Reporting Working Group)[5]. These discussions have helped identify key challenges and practical considerations related to the current supervisory reporting framework.

13. Feedback gathered from this Discussion Paper will contribute to the development of the proposals for integrated supervisory reporting, which will be subsequently taken into account when developing the AIFMD and UCITS reporting frameworks. In particular, it will support the design of a framework that is consistent with the objectives of the legislation and the principles mentioned above, while taking into consideration the practical aspects of data collection and reporting processes within the asset management sector across the EU.

2 Stocktake of asset management reporting frameworks

14. The first step in drafting the report on the integrated reporting involves taking stock of the existing reporting frameworks in the field of asset management. This includes an in-depth review of periodic reporting obligations applicable at both the EU level and national level. The objective of this exercise is to provide ESMA with a clear and structured understanding of the current supervisory and statistical data landscape across the Union. This foundational step is critical to identify areas of potential alignment and will serve as a solid basis in further developing the report.

15. Alternative investment fund managers (AIFMs), management companies of undertakings for collective investment in transferable securities (UCITS) and branches of EU and non-EU fund managers are subject to regular and detailed reporting obligations to relevant competent authorities at both the EU and national level. These reporting obligations serve both supervisory and statistical purposes. The statistical reporting supports the European System of Central Banks (ESCB) in fulfilling its tasks, including monetary policy, financial stability monitoring, and macroeconomic analysis. In particular, UCITS and AIFs located in the euro area are required to report statistical data under the relevant European Central Bank (ECB) regulations.

16. This stocktake also aims to identify overlaps, redundancies, and inconsistencies across these frameworks. By mapping out the full spectrum of data collected from fund managers, including both regular and ad-hoc requests, ESMA can better assess the fragmentation of the reporting landscape and the potential administrative burden placed on reporting entities.

[5] Standing Committees

17. In addition, to highlighting duplicative or inconsistent requirements, the stocktake identifies areas where the current reporting does not fully meet the information needs of authorities. This gap analysis will inform the design of a more integrated data collection system that ensures comprehensive coverage while avoiding excessive or unnecessary data demands.

18. This stocktake leverages firstly on the Fitness check of EU supervisory reporting requirements [6] conducted by the Commission to review supervisory reporting requirements in EU financial services legislation. This fitness check was published in April 2020 and highlighted several key findings related to the asset management reporting framework, namely:

    - Fragmented supervisory reporting requirements;
    - Lack of harmonisation;
    - Overlapping reporting obligations;
    - Inconsistencies in timing and frequency of reporting;
    - No clear link between regulatory objectives and the data to be reported; and
    - High reporting costs and administrative burden.

19. Some of the above issues had already been raised by stakeholders in the asset management sector in the context of a report on the operation of the AIFMD [7] published by the Commission on 9 January 2019. In particular, a number of complaints highlighted double reporting due to overlaps and inconsistencies between the reporting requirements under asset management frameworks on the one hand and under SFTR (Securities Financing Transactions Regulation), EMIR (European Market Infrastructure Regulation) and MiFID (Markets in Financial Instruments Directive) on the other hand. Overlaps were also mentioned across asset management reporting frameworks between AIFMD, UCITS [8], MMFR and ECB statistical reports.

20. In addition, this stocktake leverages on the questionnaire prepared by ESMA on fund reporting to gather input from relevant public authorities. The questions invited authorities to provide details on the national and EU-level reporting regimes they

[6] https://commission.europa.eu/publications/fitness-check-eu-supervisory-reporting-requirements_en
[7] https://finance.ec.europa.eu/publications/report-operation-alternative-investment-fund-managers-directive-aifmd_en
[8] Reporting under the UCITS Directive remains predominately at the discretion of national competent authorities. In 2019, UCITS did not include supervisory reporting mandates as such. It merely sets out a minimum content for reports which are subject to public disclosure (e.g. provision of the annual and semi-annual report).

oversee, including the frequency of reports, submission methods, and whether duplicated reporting occurs. It also covered ad-hoc data collection practices, the use of standardised templates, and any data-sharing arrangements in place with other authorities. Lastly, the questionnaire sought information on how the collected data is used.

2.1 Supervisory reporting frameworks

2.1.1 Harmonised EU-level asset management reporting frameworks

21. Harmonised frameworks, such as the AIFMD and the MMFR, establish EU-wide standards for asset management reporting. These frameworks aim to facilitate risk assessment or risk monitoring in a harmonised manner by:

    - requiring reporting on portfolio composition, risk exposures, and leverage;
    - standardising reporting formats across Member States and
    - supporting cross-border supervision and consistency.

22. Level 1 legislation outlines the core information entities are mandated to report for effective oversight and supervision. Only data that supports these regulatory objectives are included in EU reporting templates. Annex 2 describes in detail the EU-level asset management reporting frameworks.

2.1.2 National reporting frameworks

23. Up until recently, the UCITS Directive did not establish a harmonised regular data collection at EU level. Consequently, the definition and scope of reporting obligations were largely left to the discretion of NCAs. This has led to significant variation in the periodic reporting requirements for UCITS across different Member States.

24. In addition to the AIFMD EU reporting framework applicable to AIFs, NCAs may impose additional reporting obligations at the national level. These supplementary requirements often aim to address specific supervisory needs or data gaps not fully covered by the harmonised AIFMD reporting framework.

25. Annex 3 provides further details on the national reporting requirements under UCITS and AIFMD.

2.1.3 Other EU-level supervisory reporting frameworks

26. Other EU-level reporting frameworks are applicable to investment funds such as the European Market Infrastructure Regulation (EMIR), the Securities Financing Transactions Regulation (SFTR), the Markets in Financial Instruments Directive II (MiFID II) and the Digital Operational Resilience Act (DORA).

2.2 Statistical reporting frameworks

27. The statistical reporting framework serves to collect harmonised, granular data on AIFs and UCITS, including MMFs to support:

- Monetary policy analysis;
- Financial stability monitoring;
- Macroprudential policy; and
- Market transparency and research.

28. This information is provided to the euro area NCBs and transmitted to the ECB. Statistical data could be also collected voluntarily by the non-euro area NCBs and transmitted to the ECB. Annex 4 describes in more detail the statistical reporting frameworks applicable to UCITS and AIFs.

2.3 Best practices for data collection for retail investment funds

29. ESMA has been mandated to compare best practices for data collection in the Union and in other markets for retail investment funds9.

30. One practice observed in some EU jurisdictions involves integrating of reporting regimes and/or aligning reporting obligations for AIFs with those of UCITS in case Member States allow AIFMs to market to retail investors in their territory or when the investment strategies are similar. This approach aims to ensure that funds with similar risk profiles and similar investors (retail investors) are subject to the same regulatory treatment, particularly in terms of data collection. It also helps to reduce the reporting burden by using the same templates and data flows for both UCITS and AIFs. Both AIFs and UCITS already disclose clear and concise information to investors, through a KID where the fund qualifies as a PRIIP.

[9] Article 20b(1) second paragraph UCITS Directive “In that report, ESMA shall also make a comparison of best practices for data collection in the Union and in other markets for retail investment funds.”

31. In the United States, the Securities and Exchange Commission (SEC) operates the EDGAR system as a centralised, single-entry portal. Registered investment companies submit standardised filings (e.g., Form N-PORT, N-CEN) electronically through EDGAR, which facilitates nationwide consistency and streamlined oversight. Form N-PORT is the reporting form used for monthly reports of registered management funds other than money market funds, and exchange-traded funds organised as unit investment trusts. Funds report information about their portfolios and each of their portfolio holdings as of the last business day, or last calendar day, of each month, and these fillings become publicly available. Current amendments to Form N-PORT will require funds to file reports on Form N-PORT monthly within 30 days after the end of the month to which they relate.

32. The amendments will also make funds' monthly reports on Form N-PORT available to the public 60 days after the end of each month instead of every third month of a quarter only. To enhance data usability, the SEC also publishes structured datasets derived from publicly available N-PORT filings. These datasets aim to assist the public, researchers, and market participants in analysing the content of Commission filings in a consistent and accessible manner.

2.4 Questions

Q1.Do you confirm the findings presented in this stocktake section? If you have additional information, please provide all relevant details.

Q2. What are the best practices for data collection for retail investment funds in EU and non-EU jurisdictions that ESMA could consider?

3 Assessment of overlaps and inconsistencies between reporting frameworks

3.1 Reporting fragmentation

33. Evidence collected by ESMA so far suggests that there could be more than 100 distinct asset-management reporting templates in use across the EU, varying by fund type and jurisdiction. While some of these templates are tailored to address specific data needs, fund managers, in particular those that engage in cross-border activities, are required to comply with a significant number of reporting templates, each with its own structure, terminology and reporting instructions. This diversity in reporting templates contributes significantly to operational inefficiencies and raises compliance costs, especially for fund managers overseeing diverse fund types across multiple Member States.

34. The table in Annex 5 Annex 5. High level comparison of asset management reporting frameworks (AS-IS)to this discussion paper summarises the high-level comparison within the supervisory and statistical reporting frameworks.

35. There are clear divergences within the EU supervisory reporting frameworks which concern the reporting entities, the collection bodies, the reporting frequency, the identifiers used, the main dimensions applicable to the reporting and the granularity.

36. In addition, there are further differences between the supervisory and statistical frameworks regarding the geographical area.

37. As already noted in Section 2.1, reporting for UCITS before the introduction of EU-level reporting obligations is significantly more fragmented than under the AIFMD. Reporting details are currently left to the discretion of NCAs, which leads to significant inconsistencies between different jurisdictions. It is particularly problematic for entities operating on a cross-border basis, as these entities are required to submit UCITS reports independently to the competent authority of each UCITS home Member State.

38. Furthermore, despite ESMA's efforts to harmonise AIFMD reporting through guidelines, Q&As and technical reporting instructions, national differences persist particularly regarding the additional reporting requirements introduced by ESMA's 2013 opinion[10] which have not been endorsed by all Member States. . Divergences also remain in the data submission processes.

39. At the level of EU reporting frameworks, MMFs are subject to overlapping reporting obligations. MMFs must report under both the MMF reporting regime and the applicable framework under either the AIFMD or UCITS Directive, depending on their legal classification.

40. Additionally, some AIFs subject to supervision by an NCA in their home or host Member State may need to comply simultaneously with EU harmonised AIFMD reporting obligations and national reporting requirements. This potential accumulation of reporting requirements results in an additional operational and administrative burdens for fund managers.

41. The fragmentation of reporting requirements also stems from the juxtaposition of regulatory and statistical reporting frameworks, particularly in cases where the NCA differs from the NCB. NCBs may impose specific reporting templates on UCITS and AIFs, and may apply different data requirements to MMFs. When the collection of

[10] Opinion - Collection of information for the effective monitoring of systemic risk under Article 24(5), first subparagraph, of the AIFMD

statistical data was introduced to meet the ECB's requirements, NCBs opted to build upon pre-existing domestic reporting infrastructures, many of which had been in place for decades. While this approach offered a pragmatic solution to meet new statistical reporting obligations without a complete overhaul of existing systems, it has increased the reporting burden for fund managers over time. As the scale of cross-border fund activity has grown and both EU-level and national regulatory frameworks have evolved, this fragmented and heterogeneous approach has become increasingly burdensome, especially for fund managers with operations spanning multiple jurisdictions.

42. A non-exhaustive list of overlapping data requirements that fund managers face under various EU-level and national frameworks is available in Annex 6. These overlaps stem from the fact that each framework has been developed in isolation to serve distinct policy objectives, leading to the proliferation of separate templates, taxonomies, and submission channels. While the integration and harmonisation of reporting requirements could improve efficiency and reduce the burden on reporting entities, it is important to acknowledge that full harmonisation may not be achievable nor desirable. This is due to the inherent diversity in fund types, investment strategies, risk profiles, supervisory practices and mandates of relevant authorities which necessitate differentiated approaches and reporting priorities.

43. In addition, there have been a number of complaints about double reporting due to overlaps between the reporting requirements to NCAs under AIFMD on one hand and under SFTR, EMIR and MiFID on the other. For example, the SFTR and AIFMD both require the submission of certain information regarding repurchase and securities lending transactions, including counterparty exposures and the value and type of collateral. Another example is that fund managers have to report collateral positions for OTC derivatives under both EMIR and AIFMD in different pre-defined formats and on different aggregation levels.

44. Overlaps were also mentioned between the reporting requirements under AIFMD and Transparency Directive, Short Selling Regulation or Fund annual and semi-annual financial reports.

3.2 Main gaps within asset management reporting frameworks

3.2.1 Main data points gaps between asset management reporting frameworks

45. Data gaps in reporting make supervision less effective. For instance, in the current version of the AIFMD reporting template there are no specific categories further defining alternative funds (such as MMFs and ELTIFs). As a result, depending on the country, a large share of the funds fall into the "other" category, potentially

depriving supervisors of relevant information. Annex 10 Annex 10. Indicative reporting fields identified for consideration in future templateslists some reporting fields that may be considered in the future reporting template based on the answers to the questionnaire shared with authorities. In addition, the table in Annex 7 to this discussion paper summarises the main data points gaps between the asset management reporting frameworks.

3.2.2 Main data semantics gaps between asset management reporting frameworks

46. The UCITS Directive and AIFMD both take the form of directives which do not fully harmonise all definitions and reporting items. Some deviations in the definitions or their interpretation remain across Member States despite the guidance provided in both level 2 and level 3 legal texts. This may result in a lack of consistency in some data points and in limited consistency across the same fields reported by different managers, hindering aggregation of the data at both national and ESMA levels.

47. The table included in Annex 8 of this discussion paper summarises the main data semantics gaps between the asset management reporting frameworks.

3.3 Preliminary conclusions

48. The stocktake shows that in addition to EU harmonised data collections, such as those underlying AIFMD, MMFR, EMIR and SFTR, there are various national data collections within Member States, both by NCAs and NCBs. This leads to a large number of templates and to fragmentation and duplication in data collections. In addition, evidence collected from asset managers, NCAs, NCBs and the ECB highlights some overlaps, gaps and inconsistencies.

49. This discussion paper tries to identify the various options to streamline the reporting process without drawing firm conclusions at this stage. To achieve this, the report considers the principle referred to as "Define once, report once" across all the proposed options, while acknowledging the status quo, which in some cases does not follow said principle. It particularly means that the report will consider the development of a common language and dictionary for 'define once' as well as the analysis of architectures to facilitate 'report once'.

50. Based on these observations, ESMA considers that the following elements shall be explored further in order to move toward integrated reporting:

    - Data semantics;

    - Reporting flows and data sharing;

- Reporting formats and systems;
- Granularity of data and data standardisation; and
- Reporting frequency.

3.4 Questions

Q3. What challenges arising from overlapping EU-level and national reporting obligations (e.g. under AIFMD, UCITS, MMFR) does your institution experience? Please describe specific reporting overlaps and their operational impact or compliance costs quantifying and providing examples of redundant submissions.

4 Integrated reporting

51. The new AIFMD and UCITS Directive present a key opportunity to advance the integration of supervisory reporting across the asset management sector. A central assumption is that the alignment of reporting requirements under both frameworks could serve as a foundational step toward a more consistent and harmonised reporting landscape at the Union level[11]. In this context, existing prudential reporting frameworks for UCITS already implemented in some Member States could serve as a practical starting point to support the design and rollout of a future integrated reporting framework.

4.1 Integrated reporting options

52. Several options reflecting various levels of integration may be considered, based on regulatory convergence and data harmonisation. All options necessitate the development of a robust data dictionary[12] and comprehensive reporting guidance, closely tied to legal requirements, to ensure consistent interpretation and implementation across jurisdictions as further elaborated in below section on "Data semantics".Having assessed the current landscape of asset management reporting and having outlined possible options for more integrated reporting templates, this section turns to identifying the main priorities that should guide the path toward greater integration. These priorities are essential to ensure that any future reporting framework not only reduces burden and duplication but also delivers high-quality, meaningful data to authorities. By focusing on supervisory relevance, proportionality,

[11] See Recital 57 of Directive (EU) 2024/927 of 13 March 2024 amending Directives 2011/61/EU and 2009/65/EC as regards delegation arrangements, liquidity risk management, supervisory reporting, the provision of depositary and custody services and loan origination by alternative investment funds
[12] See Technical paper on a common data dictionary in EU financial services - European Commission

and operational feasibility, the next parts of the paper identify opportunities to simplify reporting obligations and promote greater use of reported data.

4.2 Focus on reporting elements with high added-value

53. The objective of the integrated template is not to introduce new data fields but to rationalise existing reporting requirements by focusing on elements that offer high added value. This means prioritising data that is critical for achieving statistical and supervisory objectives, risk assessment, market surveillance, and enhancing investor protection.

54. A systematic analysis should be undertaken to evaluate whether certain data elements currently collected add meaningful value to supervisory processes. Where specific reporting fields are found to be redundant, outdated, or offer limited analytical or supervisory benefit, they should be considered for removal to streamline the reporting burden.

55. Reporting templates may be developed with a clear focus on regulatory outcomes. Each data point should be justified by its relevance to a specific supervisory purpose, risk indicator or statistical purpose, ensuring that the information collected is actionable, comparable, and necessary. This output-driven approach can improve the efficiency and proportionality of reporting requirements.

56. This approach is based on a top-down approach as it is driven by supervisory and policy objectives and starts from what authorities need to know. Here is how this approach could be proposed and applied:

57. Description:

    - Authorities define key risks, supervisory use cases, or policy objectives first.
    - From these objectives, they identify the specific data elements needed.
    - The focus is on output relevance: only collect what feeds directly into pre-defined goals.

58. Benefits:

    - Prevents overcollection of data that serves no clear regulatory purpose.
    - Promotes proportionality and efficiency.
    - Supports harmonisation across frameworks.

59. In the context of developing an integrated and streamlined data collection framework, bottom-up approach may also offer valuable perspective. This approach starts from the existing data available at fund level (or industry practices) and works upwards. Here is how this approach could be proposed and applied:

60. Description:

- Authorities analyse what regulatory analysis are already performed and check also what fund managers already produce, track, and report

- Data requirements are then built or adapted to reflect these operational realities.

- It gives emphasis on data reuse, granularity, and automation feasibility.

61. Benefits:

- Reduces compliance costs and manual burdens.

- Promotes interoperability and alignment with market standards.

- Improves data quality, as reporting is based on existing workflows and systems.

62. A proposed strategy may be to adopt a hybrid model to ensure a fit-for-purpose reporting framework. Indeed, ESMA may consider adopting a hybrid top-down/bottom-up methodology. The top-down dimension ensures that data collection is driven by supervisory and policy needs, thereby avoiding unnecessary burdens. The bottom-up dimension ensures alignment with industry practices, existing data availability, and technical feasibility, reducing compliance costs and improving data quality. This dual perspective enables a robust, proportionate, and efficient reporting regime.

Question:

Q4.How should the approach to focus on reporting elements with high added-value approach be implemented to ensure proportionality, efficiency, and data quality?

63. Data semantics These options should be considered in conjunction with those presented in section on "Reporting flows and data sharing" which addresses the potential use of a single national or central data collection point for EU-level reporting.

<u>Option IR1: Integrated reporting - Multiple reporting obligations with reuse of data</u>

64. Under this option, a coherent framework across multiple EU reporting regimes may be created as a holistic view composed of multiple datasets, so that data submitted once can serve multiple oversight purposes.

65. This option would make it possible to reuse data already reported in any Union reporting framework by all relevant competent authorities, at Union or national level[13]. National supervisory reporting regimes for UCITS and the existing EU-level AIFMD reporting template would be replaced by a new, harmonised EU-level template under both the UCITS and AIFMD framework. Meanwhile, existing reporting templates under the MMFR and the ECB statistical reporting framework would remain in place. As a result, the new harmonised EU-level reporting template would be limited to data points not already collected under the MMFR and ECB statistical frameworks, particularly with respect to security-by-security reporting.

66. The primary objective is to minimise redundant data submissions by enabling authorities to access, reuse, and interlink data across multiple frameworks. Achieving this would require the use of common identifiers, such as LEIs and ISINs, which serve as keys for linking datasets from different sources. In parallel, a harmonised and authoritative data dictionary as described in section on "Common data dictionary"5.5.4 would be essential to ensure that terms and definitions are used consistently across frameworks, enabling seamless integration and effective data sharing among authorities.

67. To implement this option, it would be necessary to map overlapping and unique data elements across frameworks and to define rules and mechanisms for how data reported to one authority can be reused by other authorities. However, existing national and ad-hoc specific reporting regimes are unlikely to be reusable, as their content is often too specific or tailored to particular supervisory needs. As such, integration efforts should focus on EU-level frameworks with broader applicability.

68. The main advantages of this option include the reduction in duplication and lower burden on fund managers as this model aligns with the principle of "report once, use many times". It also promotes regulatory efficiency without requiring an immediate overhaul of current legal frameworks and reporting channels. Finally, it avoids the need of immediate legislative reform, allowing for faster progress.

69. However, the main challenges under this option include:

Geographical coverage

[13] See ESAP mandate under UCITS Directive Article 20b(1)(b) and AIFMD Article 69a(2)(b).

70. As mentioned in Annex 5 on “High level comparison of asset management reporting frameworks”, EU asset management reporting frameworks have different geographical coverages. For instance, the ECB statistical reporting is only applicable to euro area funds, whereas AIFMD and UCITS reporting apply Union-wide. Consequently, the UCITS/AIFMD template may need to include elements overlapping with ECB statistical requirements, especially to capture information from non-euro area funds.

Reporting frequencies

71. A harmonised frequency under the integrated AIFMD/UCITS template may conflict with the current quarterly and annually reporting cycle established by the MMFR.

Operational complexity

72. Despite efforts to streamline reporting, the number of templates fund managers must comply would still remain substantial. This would require a comprehensive understanding of the information reported to each authority, including the frequency of submission, to ensure that only missing information is submitted.

Technological integration

73. In addition, this option presents technological integration barriers in terms of:

- System interoperability: Ensuring that different reporting systems used by various authorities can seamlessly communicate and share data is a significant technological hurdle. Legacy systems may not be easily adaptable to new data-sharing protocols.

- Harmonisation of data formats and transmission standards: Different authorities may use different data formats and standards. Harmonising these formats to ensure smooth data reuse can be complex and require considerable development effort.

Option IR2: Full integrated reporting framework

74. Under option IR2, a new single EU-wide reporting structure would replace all existing EU and national-level reporting obligations under the AIFMD, UCITS Directive, MMFR, and statistical frameworks. The objective would be to streamline both supervisory and statistical data collection and significantly reduce the reporting burden for fund managers and possibly for authorities as well.

75. A sub-scenario may be envisaged to develop a unified supervisory reporting obligation for AIFMD, the UCITS Directive and MMFR while NCBs retain national statistical templates, at least for those Member States where the securities regulator

and the NCB are not the same authority. However, this approach would significantly limit the streamlining benefits for fund managers due to the existence of separate templates exclusively for certain reporting obligations and Member States.

76. As a one-size-fits-all template may fail to reflect the specificities of different fund types, this option considers the development of a modular and layered reporting structure, combining a core set of data applicable to all UCITS and AIFs with additional modules tailored to fund-specific characteristics, such as fund type, strategy and risk profile. This approach would aim to strike a balance between standardisation and flexibility, aligning reporting obligations with the specific supervisory and statistical objectives applicable to each fund.

77. The key features of this option include:

- The core module is applicable to all UCITS and AIFs (e.g., fund identification, main fund characteristics, investor group, etc.);

- The supplementary modules are tailored to specific fund requirements or regulatory needs such as specific fund types (real estate or private equity funds), MMF liquidity requirements; AIF leverage requirements, derivatives exposure requirements or specific statistical requirements (if the unified layered reporting template also covers the statistical reporting framework). The objective is to ensure that reporting remains proportionate and risk sensitive, providing the appropriate level of detail based on the specific risks incurred.

78. Advantages:

- Offers a flexible and scalable framework that can be adapted as needed across different fund types and supervisory contexts.

- Helps to minimise the reporting burden by requiring fund managers to follow a single reporting template and complete only the modules relevant to their fund type and legal obligations.

- Supports better alignment of reporting content with the actual regulatory purpose of each data point.

79. Challenges:

- Complexity: Requires a well-defined structure to ensure that modules are clearly delineated and do not create additional burden.

- The need for an increased coordination between NCAs, ESMA, ECB and NCBs and, in consequence, lower flexibility to adapt the reporting requirements by individual authorities in case of evolving needs.

80. In case national data requests continue to coexist alongside this EU-level integrated reporting, it might undermine the core objective of reducing the overall reporting burden.

Option IR3: Full integrated reporting framework including specific national reporting requirements

81. Option IR3 builds upon the modular approach of Option IR2 by introducing an additional layer of flexibility for NCAs. Under this option, the data model would be designed to accommodate national-specific reporting fields, enabling authorities to collect information necessary for national supervisory and statistical priorities without disrupting the overall structure of the integrated framework. However, priority should be given to the reduction of duplicative reporting requirements rather than expanding them. The integration of national-specific fields may risk reintroducing fragmentation and undermining the benefits of harmonisation. As such, the development of national extensions should be strictly limited to well-substantiated cases where no equivalent EU-level data exist, and should follow a transparent and standardised governance process. In addition, the data model may be designed to technically accommodate ad-hoc requests that are crucial, especially during crisis times (further considerations on this matter are presented in section 5.6.3).

82. The key features of Option IR3 could include:

- A core module applicable to all UCITS and AIFs, encompassing universally required reporting data.

- Specific modules addressing fund-specific EU-level regulatory requirements (as outlined in Option IR2).

- The possibility for the authorities to define national-specific modules or fields that address local supervisory needs, incorporated within the same unified reporting structure.

- A flexible architecture allowing for the integration of national requirements, including for ad-hoc requests, while maintaining a consistent structure across the EU. To support this, some guidelines may be issued to authorities to promote the use of harmonised standards when designing data requests. However, certain highly specific or exceptional requests may not merit standardisation, given their limited scope or unique nature.

83. Advantages:

- Provides a flexible and scalable solution capable of addressing EU-wide and national reporting obligations in a single framework.

- Helps reduce redundant reporting by aligning national reporting with the EU-wide structure, while still addressing national information needs.

- Supports jurisdictional customisation without creating entirely separate reporting regimes, thereby easing implementation for fund managers operating in multiple Member States.

- Harmonising the format for national/ad-hoc requests would be beneficial for fund managers

84. Challenges:

- Responsiveness challenges in crisis situations. The need to fulfil rapid data collection in times of crisis may be constrained by the integration of national reporting elements, potentially limiting NCAs' flexibility to swiftly launch or adapt national-level data requests.

- Increased operational complexity due to the integration of national-specific elements, which could burden both authorities and fund managers unless effectively managed through the common data dictionary and standardised governance process.

- Implementation demands close collaboration between EU-level authorities and the national authorities to ensure the framework remains coherent and does not lead to duplication or confusion.

- The integration of national-specific reporting may raise concerns about data access, use, and confidentiality.

85. In addition, to enable a unified and flexible reporting regime, it could be considered to propose aligning MMFR with AIFMD and UCITS Directive and shifting frequency and thresholds to Level 2 for future revisions to MMF Regulation. It would remove the current limitation to the creation of an integrated reporting regime.[14]

[14] In ESMA's opinion on the review of the MMFR, ESMA already expressed its view that the frequency of reporting should also be raised in normal times from quarterly to monthly, for MMFs above threshold, and from annually to quarterly, for MMFs below threshold. This would be more in line with the ECB reporting requirements, and would allow for more informed decisions from NCAs and ESMA for their respective tasks.

4.3 Opportunities beyond asset management reporting frameworks

86. Efforts to establish a more integrated and efficient reporting framework should not be confined solely to the asset management sector. Rather, a forward-looking strategy should examine how cross-sectoral alignment, particularly with other areas of the financial system, can reduce duplication, improve data quality, and support more effective supervision.

87. A strategic objective of integrated reporting should be to identify areas where the asset management reporting framework may benefit from existing data collection mechanisms in other financial sectors and, conversely, where other frameworks may leverage data collected within the asset management domain.

88. This section explores opportunities for synergies and mutual benefits between the asset management reporting framework and reporting obligations applicable in other parts of the financial sector. The analysis is structured around major reporting frameworks with significant overlap with the asset management field, including EMIR, SFTR and MiFID/MiFIR. Other reporting or disclosure frameworks applicable to fund managers, which are not analysed in detail, may also be referenced, such as SFDR reports, machine-readable annual report (ESEF), PRIIPs KID (non-machine readable format), EU Taxonomy reporting and short selling reporting.

4.3.1 EMIR

89. Derivatives reporting under EMIR offers a pertinent example of additional overlap. Under EMIR, counterparties (including UCITS and AIFs) are required to report detailed transaction-level data to trade repositories. These reporting obligations cover counterparty details, trade details and collateral information. In addition to granular transaction data, trade repositories are mandated to produce aggregate position reports.

90. There is a clear intersection between EMIR requirements and fund-level reporting obligations, particularly for funds engaging in derivatives for hedging, leverage, or liquidity management purposes. These frameworks require UCITS and AIFs to report derivatives exposure, including asset class breakdown, valuation and risk measures.

91. This overlapping data landscape creates significant potential for regulatory data reuse, including aggregating EMIR granular transaction-level data or reusing position reports to calculate total derivatives exposure by fund and asset class, leveraging collateral reports to support fund-level assessment of received and posted collateral or identifying counterparties for systemic risk exposure.

92. Despite these synergies, several challenges may hinder effective integration and data reuse between EMIR and asset management reporting frameworks:

   a. Regulatory and methodological divergences

   - Definitions/taxonomies may currently differ across regulations (counterparties, financial instruments)

   - Valuation methodologies are not aligned (e.g. notional of options are delta adjusted under AIFMD but not under EMIR)

   b. EMIR data may be affected by reconciliation errors and misreporting

   c. Look-through and indirect exposure challenges as asset management frameworks may require look-through to underlying exposures when derivatives are used via pooled vehicles or other funds. This multi-layered tracing may be complex, especially when involving third-country entities or structures where fund managers lack full transparency over the underlying assets.

93. To enable more effective integration and reduce inconsistencies, options could be explored to harmonise key definitions, taxonomies and to cope with delta-adjustment misalignment. In addition, EMIR data could also be used to streamline asset management reporting to populate information on the counterparties when no look through rules are applicable.

4.3.2 SFTR

94. SFTR introduces extensive transparency requirements regarding securities financing transactions (SFTs), many of which are also reported under asset management regimes. This overlap offers both opportunities for greater alignment and insight, and highlights the need for further coordination to reduce inefficiencies.

95. SFTR mandates that all counterparties to SFTs, including repurchase agreements, securities lending, and margin lending, report details of each transaction to a registered trade repository. These reports must include counterparty identification, transaction details, reuse information, and collateral quality, liquidity and jurisdiction, as well as concentration and issuer data.

96. Asset management entities such as UCITS, AIFs, and MMFs are often engaged in SFTs for purposes including liquidity management, yield enhancement, and portfolio optimisation. As a result, similar data points are reported under various frameworks, including:

- AIFMD reporting with information on the use of securities lending and repurchase agreements, counterparty exposure and information on collateral quality;

- MMFR reporting, with information on collateralised transactions, maturity profiles and exposure to counterparties and asset classes.

97. This creates multiple layers of duplicative reporting across regulatory regimes and data repositories.

98. There are several concrete ways in which SFTR data could enhance or streamline asset management reporting:

- Reusing SFTR trade repository data to populate information on securities lending, repurchase agreements, and margin lending exposures;

- Aggregating SFTR data by fund and counterparty to assess concentration risks and collateral dependencies;

- Utilising SFTR reuse metrics to explore potential contagion channels and systemic risk.

4.3.3 MiFID/MiFIR

99. MiFID imposes extensive transparency and transaction reporting obligations across the EU financial market. Although MiFID primarily targets investment firms, several reporting obligations intersect with data elements required under AIFMD, UCITS Directive, and MMFR. Given the widespread use of delegated portfolio management, execution services, and trading platforms by UCITS and AIFs, this overlap represents an important avenue for reporting alignment, simplification, and data reuse.

100. MiFID requires investment firms to report a wide range of data including on transaction reporting. Investment funds are generally not subject directly to MiFID, but their portfolio management is often delegated to MiFID-authorised investment firms. Consequently, MiFID data often contains granular records of fund trading activity.

101. There are several areas where MiFID data could inform or enhance asset management reporting, including:

- Reconstruction of trading activity by fund, including traded volumes, instruments, and execution venues;

- Calculation of turnover or execution quality based on timestamped transaction data;
- Aggregation of counterparty exposure and concentration, using MiFID's client identification data;
- Use of transaction-level data to enhance accuracy and consistency of fund exposure reporting.

102. In reverse, fund-level reporting frameworks could help enrich the supervisory analysis of trading behaviours by linking trade data to fund strategies.

103. Despite its potential, several structural and regulatory challenges hinder seamless reuse of MiFID data in fund-level reporting:

- Entity identification complexity as tracing transactions back to individual funds can be difficult
- Aggregation issues as MiFID reports are at the individual transaction level.

Preliminary conclusions

104. To effectively capitalise on the potential of EMIR, SFTR and MiFID data for fund-level reporting, targeted efforts to harmonise reporting taxonomies, particularly around counterparties, asset classifications, and collateral attributes may be considered. Harmonisation in these key areas would lay the groundwork for improved data integration, reduce inconsistencies, and ultimately ease the reporting burden for fund managers. Further analysis may also be conducted regarding the use of counterparty data to replace AIFMD and UCITS data points related to counterparties.

105. In parallel, the transformation and aggregation of transaction-level data from EMIR, SFTR, and MiFID could significantly enhance the accuracy, completeness and supervisory value of asset management reporting, particularly in the areas of derivatives exposure, securities financing transactions, execution practices, and counterparty concentration. As such, these actions represent a strategic opportunity to foster convergence across financial sector reporting regimes and strengthen risk-based supervision.

4.4 Questions

Options for integrated reporting

Q5.Do you support the objective of developing a more integrated reporting framework covering AIFMD, UCITS, MMFR, and ECB statistical reporting? What are the key obstacles or risks linked to integrating fund reporting frameworks?

Q6.Please list your preferred option of those listed in this section and highlight any other option or combination of the ones listed here that you consider effective. In your response, outline the main expected costs and benefits associated with the options proposed, and identify any preconditions or phased implementation steps that would be necessary to ensure feasibility and proportionality?

Opportunities beyond asset management reporting frameworks

Q7.To what extent should the integration or alignment of supervisory and statistical reporting extend beyond the asset management frameworks, such as EMIR, SFTR, or MiFID/MiFIR? What challenges do you foresee? Are there other reporting regimes that should be considered for future alignment with asset management reporting?

5 Main priorities for the work towards integration

106. Having assessed the current landscape of asset management reporting and having outlined possible options for more integrated reporting templates, this section turns to identifying the main priorities that should guide the path toward greater integration. These priorities are essential to ensure that any future reporting framework not only reduces burden and duplication but also delivers high-quality, meaningful data to authorities. By focusing on supervisory relevance, proportionality, and operational feasibility, the next parts of the paper identify opportunities to simplify reporting obligations and promote greater use of reported data.

5.1 Focus on reporting elements with high added-value

107. The objective of the integrated template is not to introduce new data fields but to rationalise existing reporting requirements by focusing on elements that offer high added value. This means prioritising data that is critical for achieving statistical and supervisory objectives, risk assessment, market surveillance, and enhancing investor protection.

108. A systematic analysis should be undertaken to evaluate whether certain data elements currently collected add meaningful value to supervisory processes. Where specific reporting fields are found to be redundant, outdated, or offer limited analytical or supervisory benefit, they should be considered for removal to streamline the reporting burden.

109. Reporting templates may be developed with a clear focus on regulatory outcomes. Each data point should be justified by its relevance to a specific supervisory purpose, risk indicator or statistical purpose, ensuring that the information collected is actionable, comparable, and necessary. This output-driven approach can improve the efficiency and proportionality of reporting requirements.

110. This approach is based on a top-down approach as it is driven by supervisory and policy objectives and starts from what authorities need to know. Here is how this approach could be proposed and applied:

111. Description:

- Authorities define key risks, supervisory use cases, or policy objectives first.
- From these objectives, they identify the specific data elements needed.
- The focus is on output relevance: only collect what feeds directly into pre-defined goals.

112. Benefits:

- Prevents overcollection of data that serves no clear regulatory purpose.
- Promotes proportionality and efficiency.
- Supports harmonisation across frameworks.

113. In the context of developing an integrated and streamlined data collection framework, bottom-up approach may also offer valuable perspective. This approach starts from the existing data available at fund level (or industry practices) and works upwards. Here is how this approach could be proposed and applied:

114. Description:

- Authorities analyse what regulatory analysis are already performed and check also what fund managers already produce, track, and report
- Data requirements are then built or adapted to reflect these operational realities.
- It gives emphasis on data reuse, granularity, and automation feasibility.

115. Benefits:

- Reduces compliance costs and manual burdens.
- Promotes interoperability and alignment with market standards.
- Improves data quality, as reporting is based on existing workflows and systems.

116. A proposed strategy may be to adopt a hybrid model to ensure a fit-for-purpose reporting framework. Indeed, ESMA may consider adopting a hybrid top-down/bottom-up methodology. The top-down dimension ensures that data collection is driven by supervisory and policy needs, thereby avoiding unnecessary burdens. The bottom-up dimension ensures alignment with industry practices, existing data availability, and technical feasibility, reducing compliance costs and improving data quality. This dual perspective enables a robust, proportionate, and efficient reporting regime.

Question:

Q8.How should the approach to focus on reporting elements with high added-value approach be implemented to ensure proportionality, efficiency, and data quality?

5.2 Data semantics

5.2.1 Current situation

117. Significant data semantics divergences are creating inefficiencies, inconsistencies, and an increased reporting burden for fund managers. These issues stem from varying definitions, classifications, labels, and interpretations of the same data points across multiple regulatory frameworks.

118. For instance, different regulators or reporting frameworks use the same term such as NAV or exposure with different meanings across regulatory and statistical frameworks. NAV can refer to fund-level NAV, share class NAV, accounting NAV. Therefore, certain reporting fields (e.g., fund type, asset classification, investor type) can be interpreted differently depending on local practices or legal interpretations. Furthermore, lack of harmonised code lists makes data mapping and reconciliation difficult.

119. In addition to the non-exhaustive list of data semantics gaps presented in Annex 8,Annex 8. Main data semantics gaps between asset management reporting frameworksAnnex 8. Main data semantics gaps between asset management reporting frameworks Annex 9 focuses on differences in asset and fund classification, Asset under Management (AuM) and look through requirements across asset management reporting regimes.

5.2.2 Preliminary conclusions and proposals

120. Semantics divergences may arise both from inconsistent taxonomies and from fundamentally different reporting objectives.

- Taxonomy-level misalignment: Different frameworks use the same terms, but define or scope them differently, often due to legacy systems or independent development.

- Purpose-level misalignment: Semantics gaps from divergent needs arise when different authorities need different kinds of information, even when using similar terms. In this last case, consolidating terminology will not remove the need to report the data in multiple ways.

121. But based on the existing data semantics divergences, there are several changes that may be contemplated to improve the consistency, efficiency and decrease reporting burden on the fund managers.

122. In the banking sector, the JBRC (Joint Bank Reporting Committee) has set up an expert group that is in charge of ensuring semantic integration between the different supervisory, statistical and resolution reporting frameworks. The methodology and principles for defining semantically integrated reporting frameworks developed for the banking sector could be considered, ensuring cross-sector coordination and standardisation in developing reporting requirements.

5.2.2.1 Common data dictionary

123. The first proposal would be to create a common data dictionary that would allow to establish a unified taxonomy for asset management reporting and ensure the alignment of definitions where possible. It would allow to define each data point precisely and consistently across regulatory frameworks and systematically include examples. Practical examples are key in case of complex calculations, conditional fields or data breakdown by different dimensions. There are already several initiatives at the EU level, as outlined in Annex 11, aimed at developing a common data dictionary. Data point definition should include metadata such as format, use cases, validation rules and potentially sources.

124. Targeted harmonisation efforts should be pursued in coordination with other financial sector reporting frameworks to ensure consistency, reduce duplication, and support integrated supervision.

125. Finally, a common data dictionary would enable efficient data transformation and data exploration. Data transformation allows for the creation of new data sets

(including aggregates) for analysis. Data exploration allows final users to effectively use data across multiple data sets for purposes other than those originally requested.

126. Where the same concept is reported differently under multiple frameworks, the common data dictionary may provide purpose-driven explanations. Documentation may provide a comparison table with a rationale for the divergence (e.g., micro versus macro-prudential focus) and implications on data treatment and use.

127. The framework could include:

- Standardised definitions and formats for key data fields;
- A taxonomy of documented exceptions, categorised by:
  - Regulatory exemptions, such as proportionality or national thresholds;
  - Market-specific conditions, including local investor protection rules;
  - Alternative methodologies, where justified (e.g., valuation or risk metrics).
- A centralised repository, managed at EU level, should consolidate:
  - The core reporting requirements;
  - National specificities or interpretative guidance.

128. This transparency would:

- Support better comparability of data across jurisdictions;
- Allow fund managers to identify and understand local reporting deviations more easily;
- Make supervision more effective by clarifying the structure and rationale of national differences.

129. Regarding national and ad-hoc data requests mentioned in the context of below section 5.6.3, it may be envisaged having a repository of data requests for better coordination of ad-hoc data requests.

5.2.2.2 Fund classification

130. Standardising fund classification across reporting frameworks is essential to improve consistency, comparability, and reduce reporting complexities for fund managers and regulators alike. Developing a harmonised classification taxonomy should include standardised categories for fund type, investment strategy or legal structure. As regulators collect information on the key characteristics of each fund managed or marketed in the EU, a centralised database acting as single repository for storing key fund characteristics may be envisaged.

131. This approach would allow regulators across the EU to access a consistent set of data on each fund, regardless of where the fund is managed or marketed, thus reducing reporting duplication and ensuring consistency in oversight. This approach would be particularly useful under AIFMD where the AIFM is responsible for reporting information on each fund it manages, whereas these funds may be supervised by different national regulators.

5.2.3 Questions

Q9. How can semantic data integration best be achieved across reporting frameworks? Please identify areas where alignment would be most beneficial

5.3 Reporting flows and data sharing

5.3.1 Current reporting flows

132. The collection and reporting of AIFMD and for the soon to be implemented UCITS EU level data reporting involve multiple layers of regulatory oversight at both the national and EU levels. The data is currently reported to various EU authorities depending on their mandates, including ESMA, the EBA, EIOPA, and the ESCB. Each of these institutions plays a role in monitoring financial stability, investor protection, and systemic risks associated with investment funds.

133. At the national level, NCAs are responsible for collecting data from AIFMs and management companies. However, the specific authority responsible for data collection may not always be the same as the one transmitting it to EU bodies. In some countries, financial market regulators handle both collection and reporting, while in others, these might be done by central banks or other financial oversight bodies, particularly for data used for risk-assessment purposes.

134. There are also cases where national authorities have data-sharing agreements to ensure proper coordination between different regulatory bodies within the same Member State. Under the AIFMD, AIFMs must report to the NCA of their home

Member State, which is responsible for analysing and forwarding the data as required. Similarly, under the new UCITS reporting framework, management companies are required to report to the NCA of the UCITS home Member State, ensuring that fund compliance and investor protection rules are properly enforced at the national level before data is shared with EU regulators.

5.3.2 Data sharing arrangements between national authorities

135. Certain EU Member States have established data-sharing arrangements between their national authorities to enhance regulatory oversight and risk monitoring and minimise the reporting burden. These arrangements exist for example in Austria, Belgium, Finland, France, Germany, Italy, Luxembourg, Netherlands, Slovenia and Spain. They typically involve cooperation between central banks, financial markets authorities, and, in some cases, national statistics offices to ensure a comprehensive exchange of fund-related data. There are, however, not many examples of formal data-sharing arrangements between different Member States.

136. The scope and depth of data sharing vary by country. While some national authorities primarily exchange aggregated data, others have more advanced frameworks allowing for the sharing of granular, valuation-based portfolio data on a monthly basis. However, only a minority of financial markets authorities currently receive from other authorities such detailed investment fund data, reflecting differences in national regulatory approaches and technological capabilities. These arrangements contribute to more effective macroprudential supervision and help align national reporting practices with EU-level regulatory requirements.

137. In the case of EU level data sharing arrangements, ESMA systematically shares AIFMD data with the ESRB, particularly for the analysis of systemic risks and supporting their macroprudential policy recommendations, including the production of dashboards. Furthermore, ESMA shares MMFR data with ECB for statistical purposes. MMFR does not however foresee any data sharing arrangements with the ESRB. Furthermore, MMFR under certain conditions requires for those managers of MMFs operating cross-border to report to two different authorities instead of relying on data-sharing.

138. Under both EMIR and SFTR, counterparties to derivative or securities financing transactions are required to report detailed information to a registered Trade Repository (TR).

139. The submission can be direct from the counterparty or delegated to third parties or platforms. TRs collect and store the data centrally, validate the reports based on

ESMA-defined rules and perform reconciliation when both counterparties report the same trade. TRs submit daily transaction-level data to ESMA, which consolidates data at the EU level. ESMA runs central data quality checks and applies further analytical tools.

140. ESMA then shares processed and validated data with NCAs through the TRACE system (ESMA's Trade Repository Data Reporting tool). TRACE ensures secure, efficient, and harmonized dissemination of supervisory data across the EU. NCAs use this data for their supervisory and monitoring roles.

141. Both ESMA and NCAs use this transaction-level data for market surveillance, regulatory oversight, and macroprudential analysis. ESMA may also share anonymized or aggregated data with other EU institutions (e.g., ESRB, ECB) as permitted under EU law.

5.3.3 Collecting authorities

142. In the majority of EU Member States, fund managers report data —including reporting obligations under AIFMD, UCITS, MMFR, MiFIR, ECB regulations, and national frameworks— to multiple authorities, typically involving both the national financial markets authority and the central bank. This dual collection system ensures that different regulatory bodies receive the information needed for their respective supervisory, risk-monitoring and monetary policy functions.

143. However, there are notable variations across countries in how data collection responsibilities are assigned:

- In some cases, central banks collect data on behalf of the financial markets authority. A key example is Italy, where the Banca d'Italia plays a central role in fund data reporting.

- Conversely, in certain Member States, financial markets authorities collect data on behalf of central banks and/or national statistics authorities. This occurs in Italy[15], Austria, Norway, Belgium, Luxembourg, Slovenia, and Spain, where the competent financial regulator consolidates fund data before transmitting it to other institutions.

- In a smaller group of countries, due to the presence of an integrated supervisor, a single authority is responsible for collecting and managing all reported fund data, streamlining the regulatory process. This centralised approach is followed

[15] In Italy, both the national central bank and the markets authority collect certain data on behalf of the other.

in Czech Republic, Hungary, Ireland, Latvia, Lithuania and Slovakia, where one institution oversees all fund-related reporting obligations.

- Finally, several countries have both the markets authority and the central bank collecting different but related datasets from reporting entities in completely separate flows. Some, with established data-sharing arrangements and some without.

144. These differences between jurisdictions reflect the regulatory structures and supervisory coordination models within each Member State, balancing efficiency, risk management and compliance with EU-wide reporting frameworks.

5.3.4 Validation of data

145. Under the current AIFMD reporting framework, ESMA applies more than 180 validation rules centrally before accepting and registering reports submitted to ESMA by NCAs under AIFMD. These validation rules, defined by ESMA, ensure that submitted data meet regulatory requirements and technical standards as per ESMA's validation framework.

146. At the national level, some NCAs apply additional validation rules beyond ESMA's rules, enhancing data accuracy and consistency, while others rely solely on ESMA's validation framework. These additional validation rules at the national level apply in some occasions to data points that are collected by NCAs on a voluntary basis[16], making them unsuitable to be integrated at the EU level. Some NCA indeed fully duplicate the very same validation rules applied centrally by ESMA.

147. To further improve data quality, ESMA has developed a Data Quality Engagement Framework, which includes additional validation rules aimed at detecting and correcting errors in reported data. This framework helps enhancing reporting consistency across EU jurisdictions and it ensures that fund managers meet the required reporting standards.

148. The development of new validation rules is an ongoing process conducted within ESMA's working groups and Standing Committees, where regulatory experts collaborate to refine reporting standards and address emerging data quality challenges.

[16] See ESMA's opinion on Collection of information for the effective monitoring of systemic risk under Article 24(5), first subparagraph, of the AIFMD

5.3.5 Steps in the reporting process

149. The reporting flow for regulatory data follows a structured process with several key steps to ensure accuracy, compliance, and effective supervision. It begins with the collection of data from reporting entities. Once submitted, the data undergoes technical validation, where authorities check for completeness, format accuracy, and compliance with predefined validation rules. If errors are detected, feedback is provided to the reporting entities, allowing them to correct and resubmit their data.

150. Once validated, the data is stored in centralised or decentralised databases, depending on the regulatory framework of each Member State. From there, depending on the reporting regime it may (and in certain cases must) be shared with other EU and national authorities, such as ESMA (for AIFMD and MMFR), the ECB (for statistical reporting), the ESRB or national central banks or financial market authorities, to facilitate cross-border regulatory coordination and systemic risk monitoring. To further ensure accuracy and reliability, data quality monitoring is performed through additional controls, periodic reviews, and consistency checks, supplementing the initial technical validation process.

151. If issues are identified, authorities engage with reporting entities, applying the Data Quality Engagement Framework and additional validation mechanisms to resolve discrepancies and enhance reporting standards. In cases of persistent non-compliance with reporting requirements, supervisory actions may be taken, ranging from warnings to enforcement measures.

152. The level of integration and centralization of these steps varies across jurisdictions and depends on multiple factors. These include the empowerments of authorities, which determine their legal mandate in overseeing data collection and enforcement; the possibility to reuse existing infrastructures to avoid duplication and improve efficiency; the trade-off between complexity, cost, and economies of scale when implementing reporting solutions; the benefits of a consistent approach, particularly in enhancing overall data quality and regulatory effectiveness; and the analysis performed by the different authorities, such as ESMA's TRV[17].

153. In the specific case of statistical reporting to the ECB, the data is enriched with the CSDB (Centralised Securities Database), which is accessible to the NCBs and the ECB.

[17] https://www.esma.europa.eu/sites/default/files/2024-01/ESMA60-1389274163-2572_TRV_article_-_Assessing_risks_posed_by_leveraged_AIFs_in_the_EU.pdf

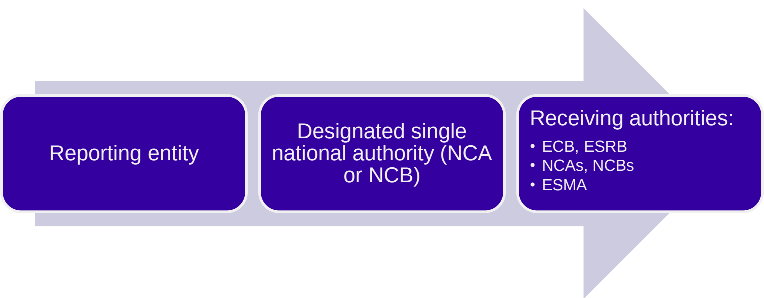
5.3.6 Proposed options

Option 1

154. First of all, one option to reduce the reporting burden of all reporting entities would be to require them to submit their data in an integrated report to a single national authority, which could be either the national central bank or the markets authority. This option would benefit from synergies from the creation of a single template as described in various options mentioned in the section on “Integrated reporting”.

155. This option would allow for a single national collection point which would then continue distributing the relevant information to other authorities currently receiving it, such as ESMA, the ECB, and the ESRB, reducing duplication and ensuring that entities only need to report once. Such a model would simplify compliance for reporting entities while maintaining strong national oversight. The choice of the authority could either be left to each Member State or decided by establishing certain clear criteria that define the single competent authority for all reporting. This choice could rely on delegation arrangements to simplify the tasks without changing the authority responsible for the collection.

156. It would however not resolve certain issues described above, such as the need under UCITS for certain fund managers operating cross border to report in certain circumstances to multiple national authorities (the same happens in other instances, such as the submission of separate reports to the NCA and the NCB for statistical reporting, the existence of additional national reporting requirements in a different MS, or when AIFs marketed to retail investors reporting to all relevant MS).



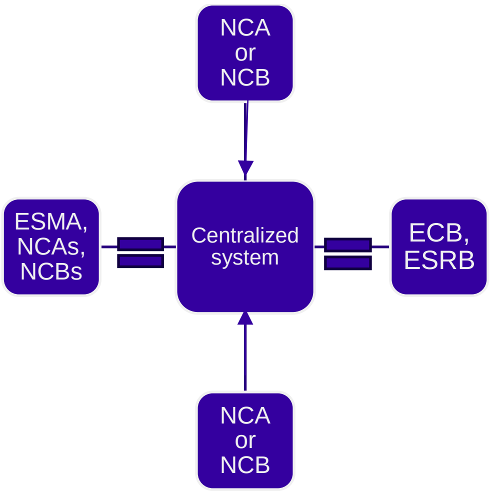
Option 2

157. A second option would follow the same approach as the first one at the stage of data collection, keeping a single collecting authority at the national level with ownership over the data, while all information (i.e. AIFMD,UCITS, MMFR, central banks statistical reporting, MiFIR, EMIR, SFTR) would then be transmitted to an EU

wide centralised system through which the information could be shared with all other authorities having a legitimate use and mandate for that data.

158. This option would simplify the reporting process by establishing a single point of reference at the national level, while ensuring better sharing of the data between other authorities. The validation of the data could be kept at the national level or moved to the centralised system for enhanced consistency, as described below.

159. This option would also mean an important reduction of costs for authorities, which would share and reduce the amount of financial effort needed by eliminating some of the duplications and streamlining the process. Authorities would be able to pool resources by centralising some of the analytical work on the data, gaining immediate access to more complete data products which would rely on EU-wide data.



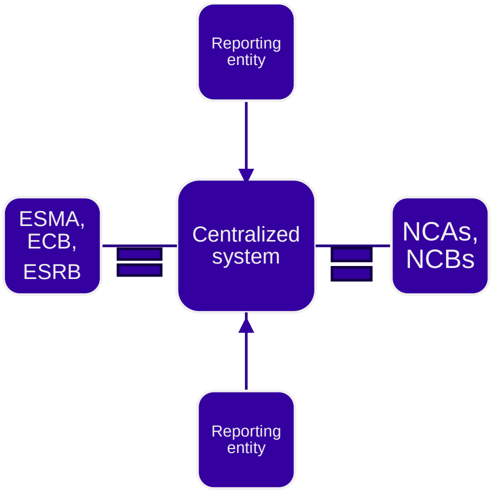
[18]

Option 3

160. An alternative and more integrated approach would be to implement a centralised reporting system at the EU level, e.g. to be developed by ESMA. Under this option, all fund managers and reporting entities would submit their data directly to the centralised system, which would then grant access to the necessary information to the national and European authorities that have the relevant rights to access it. This option would enhance consistency across jurisdictions by providing a single reporting interface, ensure uniform application of reporting requirements, and eliminate discrepancies in data validation. A key advantage of this model is that it would provide a single, harmonized source for fund data at the European level, streamlining oversight and reducing administrative burden for both reporting entities

[18] In Option 2 reporting entities would still report to their national authority who would then send the data to the centralised system.

(all entities, regardless of the Member State, would report to the same system, using the same formats and protocols) and regulators. This centralised system would reduce costs for authorities by relying on common analytical capabilities that would ensure greater convergence between authorities.



161. Given the importance of data validation when it comes to improving reporting efficiency, instead of national authorities independently interpreting validation rules, ESMA could assume responsibility for centralised validation leveraging on the current validation frameworks developed for AIFMD and MMFR. This would standardise data validation across all jurisdictions, ensuring consistency and eliminating discrepancies between how different national authorities apply validation criteria. This approach would enhance data reliability while reducing redundant checks at the national level and reducing burden for reporting entities due to having a consistent approach across the EU.

162. Finally, all of these approaches could consider an option that would rely on proportionality. Under this hybrid approach larger fund managers (who are those more affected by the current duplications and inefficiencies) would report directly to a centralised reporting system at the EU level, benefiting from more efficient, centralised processing, while smaller entities continue reporting to their national authority, which would then forward that data to the centralised hub. This model would balance the benefits of further integration with the need to accommodate different needs and capacities of reporting entities. It would also benefit authorities by providing a common platform to store, share and analyse data.

163. Regardless of which option or combination thereof is chosen, all these models should be supported by enhanced data-sharing agreements between NCAs, NCBs, the ECB, ESMA, and the ESRB. Strengthening cooperation and information exchange between these authorities would ensure better use of available data,

reducing the need for redundant reporting and improving fund supervision and statistical analysis across the European financial system.

164. Furthermore, it must be clarified that none of the identified options pre-empt or propose any change when it comes to the supervision of the reporting entities. Day to day interactions with supervised entities under all the above options (including under Option 3) would remain under the responsibility of national authorities. This would follow similar examples such as the existing practice under MiFIR Article 27, whereas trading venues are required to report financial instrument reference data directly to a central system operated by ESMA, while the supervision remains at the NCA level.

165. The choice between the proposed options could also envisage a transition period that could start with only some of the proposed changes applying to larger fund managers.

5.3.7 Questions

Q10. Which of the proposed options do you consider most efficient? If possible, please quantify the expected cost and benefits for each option. Would you support an alternative option involving additional actors, such as centralised reporting infrastructures?

Q11. How important is it to retain the supervising NCA as an intermediary in the reporting process between the reporting entity and the centralised system?

Q12. Are there any other data sharing arrangements, either within or beyond asset management, that you believe would be beneficial for burden reduction?

Q13. Would a phased implementation of the potential changes outlined in the sections on "Integrated reporting" and "Reporting flows and data sharing" help ensure proportionality and facilitate smoother transition?

5.4 Reporting formats and systems

5.4.1 Reporting formats

UCITS

166. Under the UCITS Directive, periodic reporting obligations include the submission of annual and semi-annual financial statements. These reports provide detailed insights into a fund's financial health, including its assets, liabilities, income, and expenses. Additionally, several NCAs require financial reports to be prepared in iXBRL format, which allows for data comparability and machine-readability. MiFIR, EMIR and SFTR use ISO 20022 XML format. The KID, which is another essential

reporting requirement, covering fund performance, risk indicators, and fee structures, is currently submitted in various formats. However, iXBRL may be considered for future adoption to further improve data standardisation.

167. At national level, NCAs generally require UCITS reporting in XML format, which allows for structured data submission. For aggregated reporting purposes, SDMX is used to facilitate data sharing between national authorities and European institutions.

AIFMD

168. Under AIFMD, fund managers must submit reports which include comprehensive details about fund-specific, manager-specific, and risk-related data. Most NCAs mandate reporting entities to submit these reports in XML format. To ensure uniformity across jurisdictions, ESMA also publishes a standardised schema for managers to follow. In addition, for aggregated data reporting, SDMX is used to facilitate the exchange of data with European regulatory bodies.

ECB Regulations

169. For statistical reporting under ECB regulations, most national central banks use XML format to collect investment fund data. Aggregated data submissions to the ECB under regulations such as the Regulation on the statistics on the assets and liabilities of investment funds are submitted in SDMX format, ensuring a standardised exchange of macro-level financial information.

170. However, some exceptions exist, with certain NCBs still allowing or requiring reports in CSV format, while at least one NCB continues to use an internal legacy format for data submission.

National reporting obligations

171. Beyond the harmonized EU reporting frameworks, many NCAs impose additional national reporting requirements on investment funds. These additional reports, which may cover more granular financial data, investor disclosures, or risk metrics, are often submitted in CSV format, as this is a widely used and flexible format for smaller datasets.

172. However, in cases where national reporting requires greater data structure and validation, XML is mostly mandated, with a minority of prudential authorities noting XBRL formats as their choice.

5.4.2 Reporting and exchange systems

173. Many NCAs have established dedicated online portals to facilitate the submission of regulatory reports by investment fund managers and other financial entities. These portals serve as centralised platforms for submitting reports required under AIFMD and UCITS (KID), as well as other regulatory obligations. By providing secure and structured submission methods, these portals help streamline compliance and ensure that data is collected in a standardised manner.

174. Additionally, some NCAs provide web-based submission portals, where fund managers can directly enter data via online forms, simplifying the reporting process for smaller funds that may not have the infrastructure to generate structured data files. Certain Member States allow for a combination of the above options (such as XML and web-based forms), ultimately leaving the choice up to the reporting manager.

5.4.3 Interoperability of systems

175. In many jurisdictions, NCAs maintain extensive databases that consolidate information from multiple regulatory reporting frameworks, including AIFMD, UCITS, MiFID/MiFIR, and ECB statistical requirements. These databases enable authorities to cross-reference data from different sources, improving risk analysis, supervisory oversight, and financial stability assessments. The data is typically structured in two main forms:

- Granular Data Systems: Store detailed, fund-level and transaction-level data, allowing in-depth analysis of individual fund activities.

- Aggregated Data Systems: Process and summarize data to produce high-level statistical reports for policy and macroprudential analysis, often shared with institutions like the ECB and ESMA.

5.4.4 Tools for Data Processing

176. To manage the complexity of regulatory data, many NCAs have developed internal data processing tools that allow them to validate, aggregate, and analyse information submitted by financial entities. These tools are crucial for transforming raw regulatory data into meaningful insights, particularly for ECB reporting obligations as well as for supervisory analysis. They enable NCAs to comply with European reporting frameworks by generating aggregated statistical reports required for macroprudential supervision and monetary policy decisions.

5.4.5 ESMA's Centralised Regulatory Databases

177. ESMA operates key centralised databases to enhance transparency and regulatory oversight across the EU. One major example is FIRDS, which collects instrument reference data under:

- Market Abuse Regulation Article 4(1), which requires firms to report reference data for financial instruments traded on regulated markets.

- MiFIR Article 27, which mandates the submission of reference data by trading venues to improve market transparency.

178. Additionally, TREM ensures that financial institutions and market participants comply with MiFIR Article 26, which requires transaction reports to be submitted to NCAs. These reports, which provide detailed trade data, are essential for monitoring market abuse, ensuring fair trading practices, and maintaining financial stability. Both FIRDS and TREM use ISO 20022 XML format, following a standardised schema maintained and updated by ESMA to ensure consistency in reporting across jurisdictions.

179. As previously detailed, ESMA operates the AIFMD database, which collect and aggregates detailed information submitted by NCAs under AIFMD's reporting requirements. In parallel, the MMFR reporting database serves as the central hub for quarterly reports submitted under MMFR and captures granular data for EU-authorised MMFs.

180. In addition, TRACE is the secure system operated by ESMA to facilitate the distribution and access of transaction data reported under EU regulations, notably EMIR and SFTR, to the relevant national and EU authorities. TRACE is a centralized platform designed to receive transaction data from TRs, process and filter the data based on access rights and jurisdiction and distribute the relevant datasets to NCAs, the ECB (for statistical purposes), and other entitled entities like the ESRB.

5.4.6 Way forward

181. Despite ongoing efforts to harmonize reporting frameworks, variations persist across different regulatory authorities and jurisdictions. While XML remains the dominant format for structured fund reporting, SDMX is used for the exchange of aggregated data between NCBs and the ECB. However, legacy formats such as CSV and internal NCB-specific structures continue to be used in certain cases, highlighting the need for ongoing coordination between regulatory bodies to streamline and modernize fund reporting processes.

182. As part of the review of AIFMD and UCITS, ESMA was given a mandate to define the format of all reported information. This choice of format and standards needs to take into consideration the compatibility between formats, the usability of the data and the overall strategy with regards to standardising formats across reporting regimes. It should also consider the impact of the choice of format on fund managers and authorities using the data.

183. Taking into account the current practices identified across fund reporting and the overall priorities listed above, ESMA believes that ISO 20022 XML, XBRL and JSON appear as the main choices for all granular reporting covered in this report. XML and JSON are ISO 20022 compliant, which means that ISO 20022 provides and maintains the specification for transforming the logical messages using the syntax of these data formats.

Option 1: XML

184. Given its status as the most widely adopted and standardised format across the industry, moving all data reporting for funds to the ISO 20022 XML format offers several key benefits. XML provides a highly structured, machine-readable framework that allows for seamless data exchange between various authorities, such as NCAs, ESMA, and the ECB. This ensures consistency and accuracy in reporting, as well as easier integration across different systems.

185. Furthermore, XML's flexibility allows it to accommodate complex data structures, a crucial aspect for capturing the detailed information required under a more integrated reporting of AIFMD, UCITS, and other fund reporting regulations. Since it is widely used, both reporting entities and supervisors are already familiar with the format, which would reduce implementation costs and errors. By standardising reporting in XML, data quality would be improved, transparency enhanced, and the reporting process overall streamlined, making it more efficient and less prone to discrepancies.

186. XML schema (XSD) already supports core validation capabilities, including required fields, data types, enumerated values, and structural rules, enabling essential automated checks to be embedded directly in the schema. With these rules, errors in submissions can be minimised and the time required to resolve them can be reduced, leading to more effective regulatory oversight.

Option 2: XBRL

187. Given its current use for other purposes in the financial services sector, transitioning all fund reporting to XBRL would significantly enhance data standardisation, automation, and comparability across regulatory authorities. XBRL's

structured format allows for machine-readable reporting, reducing manual processing and improving data accuracy and consistency across different jurisdictions.

188. Similarly to the situation with XML, built-in validation rules, errors in submissions can be minimized, leading to greater efficiency in regulatory oversight. Moreover, as is the case for XML and JSON, XBRL's ability to link financial concepts across multiple reporting frameworks such as AIFMD, UCITS, ECB statistical data would facilitate seamless data integration between NCAs, NCBs, ESMA, the ECB, and the ESRB.

189. It should be noted that the main use cases of XBRL include periodic and aggregated reporting such as financial statements of listed companies or specific sectorial reporting obligations under banking and insurance regulations. XML is used in the case of multiple reporting flows including more granular and frequent reporting.

Option 3: JSON

190. ESMA has been exploring across different reporting regimes the possibility and usefulness of transitioning to JSON, for example in the context of new reporting regimes such as the revised MiFIR and the new information stemming from MiCA's record keeping requirements.

191. The choice of the JSON format would modernize regulatory reporting by leveraging a lightweight, flexible, and widely adopted data structure commonly used in web-based applications and APIs. JSON's hierarchical structure is particularly well-suited for complex financial data sets, allowing for an efficient data exchange between fund managers, regulators, and data analytics platforms.

192. In comparison to XML-based formats, JSON is easier to process, could improve transmission and processing speed and reduce storage costs. Nevertheless, JSON's high network overhead due to its text-based format might require higher bandwidth, especially when latency is of the utmost concern. Adopting JSON for fund reporting could also facilitate integration with cloud-based regulatory platforms and artificial intelligence-driven data analytics, improving the overall efficiency, accuracy, and responsiveness of financial supervision. Overall its higher level of adoption by web services and APIs might facilitate integration with web-based reporting used in certain national reporting regimes.

193. ESMA believes that the choice of format should be applied consistently to AIFMD and UCITS reporting and that it should account for the required format for other relevant reporting regimes. Furthermore, depending on the different choices within this workstream, statistical reporting could eventually be derived from granular

reporting, therefore relying on the same choice of format and remaining a unique reporting flow for all institutions. SDMX could in that case still be relied upon for the purpose of exchanging aggregated data, since SDMX standard can be compatible both with XML, XBRL and with JSON, depending on the eventual choice.

194. On a separate note, Article 50(6) of AIMFD and 101 of the UCITS Directive give ESMA an optional mandate to develop draft ITS to determine the procedures for the exchange of information between relevant competent authorities, the ESAs, the ESRB and members of the ESCB.

195. This mandate would allow ESMA to decide on the best system to use when it comes to data sharing and establishing any new data flows between authorities currently not exchanging information.

196. ESMA believes that the best way to ensure the proper functioning of any devised solution when it comes to the exchange of information needs to rely on existing solutions where possible and take into account the choice of format and data standards, while acknowledging that a move towards a more integrated solution might warrant certain inevitable changes.

5.4.7 Questions

Q14. Do you consider that it would be beneficial to introduce a common standard, such as ISO 20022, across all reporting obligations within the asset management domain? What would be the costs and benefits for reporting entities of transitioning all reported data to a single standard? If ISO 20022 is not the preferred solution, what alternatives could be considered?

Q15. What would be the main advantages and disadvantages of using respective syntaxes (XML, JSON, XBRL) for all AIFMD and UCITS reporting?

5.5 Data granularity and use of master data

5.5.1 Overview

197. Different authorities require key information that is essential to fulfilling their mandate. For example, data on the assets in which the fund invests, or the entities to which the fund is linked (such as counterparties) are considered critical for supervisory, or statistical purposes.

198. Granularity refers to the degree of detail with which a business concept is captured and reported. Complete granularity involves a fully disaggregated representation of information, encompassing all its measurable components, such

as the specific assets in which a fund is invested or the characteristics of individual shareholders. At the opposite end of the spectrum, aggregated data represents a summarised view that lacks underlying details. EU and national reporting obligations have been established at different levels of granularity, corresponding to the objectives of the underlying sectoral regulations and addressing supervisory, financial stability or statistical purposes.

5.5.2 Current situation

199. Standardised EU fund supervisory reporting is governed by AIFMD and MMFR. AIFMD employs a harmonised reporting template that operates primarily at an aggregated level of granularity, focusing on asset types and predominantly utilising a top-ranking methodology. The existing AIFMD reporting covers mostly the collection of aggregated data with various breakdowns across different categories. Only a very small percentage of data points (roughly 2%) is reported on a granular basis and additionally based on a top-ranking approach. The same data may be represented through different breakdowns and at varying levels, such as at the AIFM and AIF levels. For example, the AIFMD templates encompass 14 distinct breakdowns on the valuation of assets in which the AIF invests. These dimensions include aspects such as geography, currency, trading venue, various asset typologies, and different valuation methodologies. For registered AIFMs, an even more aggregated level of granularity is applicable for asset types. The multiplication of these low-level aggregates by country, currencies or trading venues has not proved efficient in terms of reusability, scalability and costs for the fund managers. There are additional drawbacks to using a top-ranking approach as most funds have highly diversified portfolios and the top-five exposures may cover less than 25% of funds/net asset values. Additionally, the investment exposure breakdown by regions does not allow for the monitoring of cross-border exposures, in particular within the Union.

200. The MMFR features a harmonised and more integrated reporting template, which operates at a higher level of granularity, specifically on a security-by-security basis. In this regard, the MMFR template requires each asset held by the MMF to be reported separately. The valuation of assets in which the MMF invests are presented in six sections based on the type of asset. These granular values are supplemented by information on the currency, country and maturity of the asset along with details about the issuer and counterparty (country, sector). This supplementary information may be used by regulators to perform some aggregation operations across one or multiple dimensions in which the granular data is represented (e.g. total market value of securities within one specific asset type is obtained by summing individual market values of each security within this type of asset). As a result, the necessity to submit

aggregated values, in some cases, such as those presented at the currency or geographical level under AIFMD reporting framework, is not necessary.

201. Despite the security by security reporting, MMF reporting alike AIFMD does include various dedicated/specific aggregated risk indicators such as WAM/WAL and stress tests results under different scenarios, which are necessary for NCAs prudential supervision. Such aggregates cannot be replicated by NCAs as they rely on internal models and systems. Furthermore, submission of such aggregation by managers also serves NCAs to assess the quality and competence of fund managers in fulfilling their compliance duties

202. The ECB statistical reporting is also required at the security granularity level. However, the ECB Regulation provides that NCBs may grant derogations[19], particularly for securities that lack valid identification codes, where these have a low market value relative to total securities holdings at the national or individual investment fund level. In such cases, investment funds may report security information on an aggregated basis, broken down by instrument categories and counterparties.

203. In addition, the ECB has launched several initiatives to decrease the reporting burden on fund managers by centralising data and improving the consistency and efficiency of statistical reporting, including for asset management sector. A key component of this strategy is the Register of Institutions and Affiliates Data (RIAD), a centralised repository that maintains reference data on financial institutions within the ESCB. RIAD collects entities master data that are shared with NCBs to support key functions, including for the enrichment of the asset management reporting framework. Another key component of this framework is the Centralised Securities Database (CSDB) as further presented in Annex 12. These initiatives allow NCBs and ECB to rely on accurate and consistent reference data instead of requiring fund managers to repeatedly submit detailed counterparty and instrument-level data in each report. RIAD and CSDB serve as central sources of reference data that can be accessed centrally by the NCBs.

5.5.3 Moving towards more granularity

204. In preparation for future changes to the supervisory reporting obligations, the revised AIFMD has widened the scope of data that can be required from AIFMs by removing prior limitations on that scope (e.g. focusing only on major trades and

[19] Article 10 of REGULATION (EU) 2024/1988 OF THE EUROPEAN CENTRAL BANK of 27 June 2024 concerning statistics on investment funds and repealing Decision (EU) 2015/32 (ECB/2014/62) (ECB/2024/17) (recast)

exposures or counterparties as required under Article 24 of AIFMD)[20]. Both revised AIFMD and UCITS Directive require fund managers to provide more detailed and comprehensive information to NCAs. Fund manager shall, in respect of each AIF/UCITS it manages, provide information on the instruments in which it is trading, on markets of which it is a member or where it actively trades, and on the exposures and assets of the AIF/UCITS. While the reporting scope is expanded, this evolution also presents a significant opportunity to reduce the overall reporting burden, by paving the way for harmonisation with ECB statistical requirements.

205. With the increased granularity of information now required under AIFMD and the UCITS Directive, it will be possible to streamline supervisory reporting by eliminating duplicative reporting of exposures and asset breakdowns. This enhanced level of details will ensure that regulators may derive, when it is possible, aggregated figures independently, hence decreasing the need for fund managers to report the same data across different dimensions, such as country, market, counterparty or asset type.

206. These revisions have emphasized the importance of raw data collection as it allows to define simple, factual data, minimizing interpretative transformation or calculation errors. Granular data collection offers a lot of advantages in terms of data quality (it is more difficult to ensure reliable aggregated data as it depends on both source quality and transformation quality). Finally, given that it is closer to how information is recorded in the underlying systems of financial institutions, it is expected that it would be easier and cheaper to report than transformed or aggregated information. Moreover, it can reduce ad-hoc requests as authorities may already hold the necessary data.

207. Aggregated data remains essential in cases where authorities are unable to produce the required aggregates themselves. This may occur when funds are indirectly exposed to certain assets classes (by using intermediary structures such as holding companies or special purpose vehicles), or when calculations rely on internal models or proprietary data maintained by fund managers.

208. Finally, it is important to stress that while evolving towards a more granular reporting, the calculations of regulatory ratios and risk metrics remain the legal responsibility of the fund managers to ensure regulatory compliance. Fund managers are directly accountable for ensuring compliance with regulatory financial and risk metrics, including where relevant:

[20] Recital 26 of Directive (EU) 2024/927 of 13 March 2024 amending Directives 2011/61/EU and 2009/65/EC as regards delegation arrangements, liquidity risk management, supervisory reporting, the provision of depositary and custody services and loan origination by alternative investment funds

- Global exposure as referred to the relevant legislation;
- Exposure to a counterparty and issuer concentration in accordance with the regulatory limits applicable to the relevant legislation;
- Value at Risk (VaR) to measure portfolio risk under stressed conditions;
- Weighted Average Maturity (WAM), Weighted Average Life (WAL), Daily Liquid Assets (DLA) and Weekly Liquid Assets (WLA) for assessing liquidity, credit and duration risks in MMFs;
- Leverage ratios required to monitor systemic risk exposure and ensure limits set for UCITS;
- Stress testing ratios to evaluate portfolio resilience under adverse market scenarios.

5.5.4 Proposals

209. This paper does not express a preference for any particular option. The advantages and challenges outlined for each approach are indicative and not exhaustive.

210. In addition, as previously mentioned, data from the EMIR and SFTR reporting frameworks should be further assessed to determine the extent to which duplicative reporting requirements could be eliminated, and to identify potential exclusions from security-by-security or entity reporting where data reuse is feasible.

5.5.4.1 Security-by-security reporting

211. As previously highlighted, security-by-security granularity is considered a cornerstone for the harmonisation of supervisory and statistical reporting frameworks. This approach is central to aligning the revised reporting requirements under the revised AIFMD and UCITS Directive and the ECB statistical reporting framework. Under this approach, each financial instrument held by a fund is reported individually, using identifiers such as ISINs. This approach enables a common foundation and enhances consistency, comparability, and analytical flexibility, facilitating robust portfolio monitoring while also reducing duplication across different reporting regimes. The aim is to enable a unified and interoperable reporting ecosystem in which fund managers submit a single dataset that meets the core information needs of all relevant authorities. Divergences in data semantics, as outlined in section 5.2, may affect security-by-security reporting and should be further

assessed to ensure that the reported data can meet both statistical and supervisory requirements.

212. Proposals aim to explore how security-by-security granularity may be achieved by outlining two main options that could support the implementation of security-by-security reporting.

Option SS1: Full security-by security reporting

213. This option would require AIFs and UCITS to report all exposures and financial assets on a security basis. All relevant securities, including those without public identifiers, would need to be individually identified. Harmonised requirements would be applied across all funds and security types.

214. Advantages:

- Standardised template;
- Enables cross-sectoral and cross-border risk analysis.

215. Challenges:

- High operational burden, particularly for smaller fund managers;
- Difficulty in reporting instruments without standardised identifiers (e.g. private equity, unlisted securities).

Option SS2: Partial security-by security reporting

216. To ensure a proportionate approach, a mechanism allowing reporting aggregated data under certain circumstances, as it currently exists under ECB Regulation, could be also considered. However, the criteria to allow aggregation should be carefully assessed to provide for stable and consistent reporting over time across fund managers.

217. Security-level reporting is the baseline option for the majority of the portfolio, with aggregation allowed for residual items. Several scenarios could be considered to define the criteria for identifying the items that would qualify for this derogation.

Scenario 1: ECB derogation criteria replicated

218. Under this approach, the ECB derogation criteria mentioned above are replicated in full, without modification.

Scenario 2:

219. Under this approach, security-by-security reporting derogation may be justified in cases where a security lacks any public identification codes. Derogation should be limited to those cases where no public identification code exists among this indicative list of identifiers:

- ISIN;
- Securitisation identifier (where applicable);
- Digital Token Identifier (DTI), when the fund is permitted to invest in tokenised financial instruments or crypto-assets;
- Fund LEI in case of fund without an ISIN and for which a LEI might otherwise serve as a fallback identifier; and
- Unique product identifier (UPI) as reported under EMIR reporting framework for derivative transactions

220. To ensure consistency and interoperability across regulatory frameworks such as EMIR, SFTR, MiFID, it may be envisaged to use the Classification of Financial Instruments (CFI) codes, as defined by ISO 10962, to classify instruments without a public identifier. Instruments without ISINs can still be assigned a CFI code based on their characteristics, ensuring complete market coverage. This enhances the comparability and usability of the aggregated data while maintaining compatibility with other reporting frameworks. Since fund managers are already required to capture and report CFI codes under the above frameworks, leveraging on the same classification would minimise duplication of efforts and streamline reporting processes. While CFI is intended to standardise instrument classification globally, its effectiveness may be undermined by diverging implementation practices across jurisdictions. The last four characters of the CFI code, which represent detailed attributes of the financial instrument, are where most divergences occur across jurisdictions.

221. The European System of Accounts (ESA 2010) classification may be also envisaged as it includes further details beyond CFI codes, including maturity for debt securities and loans, whether the equities are listed or unlisted and the fund type to identify MMFs versus non-MMFs.

222. However, neither the CFI code nor the ESA 2010 classification serves as a security identifier, nor do they provide information related to the issuer of the instrument or the country of issuance. That implies that these classifications would

need to be supplemented with issuer-level identifiers to ensure an accurate representation of the security's characteristics.

223. Finally, the list of acceptable public identification codes could be extended to include additional identifiers such as the national or fiscal identification. Annex 15 on "data standards" presents further insights on standardised identifiers and classifications.

Scenario 3:

224. This hybrid scenario is derived from scenario 2 and considers additional criteria to be applied to identify the cases for which the data could be reported in an aggregated form at CFI code or asset type level without additional information on the issuer.

225. Table 4 presents the advantages for each scenario:

Options	Advantages	Challenges
Option SS2: Partial security-by security reporting	Proportional approach	Not fully standardised template
Scenario 1	Full harmonisation with ECB derogation Reduces effort for funds holding very small positions	Derogation defined at national level: uneven playing field ECB rules were designed for statistical data needs. It may not align with AIFMD/UCITS objectives.
Scenario 2	Focus on identification quality Promotion of identifier coverage Interoperability and data integrity Consistent application within the EU	When no identifier exists, fund managers need internal mapping systems to identify the CFI code / asset type and issuer Less proportional approach for small investment funds
Scenario 3	Focus on identification quality Promotion of identifier coverage Interoperability and data integrity	When no identifier exists, fund managers need internal mapping systems to identify the CFI code / asset type and issuer

	Operational simplicity for smaller fund managers or niche assets Consistent application within the EU	Limited traceability and analytical value when issuer information is missing

5.5.4.2 Entities on which fund managers report information

226. Collecting information on counterparties, issuers, sponsors, depository, and share/unit holder is essential for several key regulatory, risk management, and statistical purposes. Annex 13 on "Entities on which fund managers report" provides further details.

<u>LEI coverage</u>

227. The below table 5 provides an overview of LEI coverage per type of entity.

Entity type	LEI coverage	Description
Counterparties	High	Harmonisation with EMIR, SFTR and MiFID reporting.
Issuers	High	Issuers without LEI may be private or non-listed entities as well as non-EU entities without LEI obligation.
Original lender Originator/Sponsor	Medium	Original lenders without LEI may be private or non-listed entities and non-EU entities without LEI obligation. Originators without LEI may be the non-EU originators of non-EU securitisations.
Depository	Very high	Depositories without LEI may be non-EU depository without LEI obligation, depository that does not participate in transactions
Investors	Medium	LEI is not applicable to investors that are natural persons. LEI obligation may not be applicable to private or non-listed entities as well as non-EU entities.

Various options could be explored based on the type of entity concerned. In particular, it may be sufficient to collect aggregate data on share / unit holders or collect granular data only for specific categories of investors.

<u>Option 1: Full identification of legal entities with LEIs</u>

228. To report information on entities, it is envisaged to systematically use LEI codes for legal entities, as LEI may be used to retrieve essential information on the entity.

229. Advantages:

- Allows to reduce burden on fund managers as they would not have to repeat input of entity details that may be retrieved through LEI lookups or from entity centralised master data;

- Enables detailed risk concentration and systemic linkage analysis.

- Harmonised with EMIR, SFTR, and MiFID II obligations.

230. Challenges:

- Some entities may not have LEIs, because they do not qualify as a legal entity.

- Costs related to LEI.

<u>Option 2: Partial identification of entities with LEI and aggregation or top-ranking otherwise</u>

231. Under this option, fund managers would be required to report legal entities with LEI where available; for remaining entities, data could be aggregated by category of entity and domicile, or a top-ranking approach could be applied.

232. Advantages:

- Balances detail and practicality.

- Still enables basic concentration monitoring.

233. Challenges:

- May reduce precision in systemic risk analysis.

- Risk of excessive aggregation if LEI adoption is low.

<u>Option 3: Partial identification of entities with LEI and fallback identification otherwise</u>

234. Under this option, fund managers would be required to report legal entities with LEI where available; otherwise, alternate identifications.

235. Advantages:

- Balances detail and practicality.
- Still enables concentration monitoring.

236. Challenges:

- May reduce precision in systemic risk analysis.

5.5.4.3 Share class reporting

237. Regarding the granularity envisaged on the fund itself, it is noted that a number of authorities collect data at the share class level but it exists divergences in the depth of data required per framework as outlined in Annex 14.

238. To minimize reporting burden, share class granularity may be envisaged for detailed information that is available at the share class level for operational purposes. It would limit the aggregation to be performed by the investment fund.

Option SC1: Full share class-level reporting

239. Under this option, NAV, currency, investor concentration, performance metrics may be reported per share class.

240. Advantages:

- Comprehensive risk analysis
- Supports data-driven supervision as it allows authorities to monitor specific investor segments or redemptions
- Consistency with prospectus/KID documents
- Improves fund comparability

241. Challenges

- Higher volumetry
- Higher reporting burden

Option SC2: Most representative share class-level reporting

242. Under this option, identifying the most representative share class is prioritised over providing exhaustive information. All share classes would be reported with their

ISIN, name, currency and NAV, but deeper metrics like performance and redemption terms would be reported only for the most representative share class.

243. Advantages:

- Balanced approach
- Reduced burden as information is focused on one share class
- May be sufficient for many supervisory needs

244. Challenges

- Loss of granularity
- Hinders comparability between share classes
- Risk of misrepresentative data

5.5.4.4 Aggregated data reporting

245. As mentioned above, aggregated data reporting would remain the baseline for those cases where aggregated data should be still computed to ensure regulatory compliance. Information that cannot be directly or easily derived from the granular data should be also included in the reporting template in aggregated form.

246. In addition, the potential use of feedback loops and anchor values should be carefully assessed as tools to improve data quality while maintaining the primary responsibility for reporting with fund managers.

- Feedback loops involve a process where NCAs or NCBs perform data transformations and aggregations on their side and compare the results with equivalent data derived from fund submissions. Any discrepancies can then be addressed through an iterative, back-and-forth reconciliation process, helping to identify reporting inconsistencies and improve accuracy.

- Anchor values refer to predefined aggregate indicators (e.g. total assets, total NAV) that fund managers would report in parallel with granular data. These values serve as reference points for validation, allowing authorities to run internal consistency checks and identify outliers or errors in submitted datasets.

247. By integrating these mechanisms into the reporting process, authorities can enhance data quality without diminishing the accountability of reporting entities.

However, careful design is needed to ensure these tools are proportionate, efficient, and aligned across frameworks.

5.5.4.5 Leverage on master data repositories

248. Master data refers to a centralised, standardised repository of key reference information that can be used across multiple reporting frameworks. By leveraging a shared master data framework, the same core data set can be automatically retrieved across different regulatory frameworks, eliminating the need for repeated data submissions as it can be seen thanks to the ECB initiatives.

249. The main sources of master data relevant to fund reporting, particularly in the context of improving data quality, ensuring interoperability, and enabling consistent entity/instrument identification across reporting frameworks are:

- GLEIF database: Central authority for maintaining and disclosing the Legal Entity Identifier (LEI) system, which assigns unique identifiers to legal entities globally.

- ESMA FIRDS database: Centralised instrument reference database maintained by ESMA under MiFIR. Contains attributes of financial instruments traded on EU trading venues.

- European Single Access Point (ESAP): ESAP will provide centralised access to publicly available disclosures from across the EU by January 2030, enhancing transparency, accessibility, and comparability of financial and sustainability-related information.

- ANNA (Association of National Numbering Agencies): ANNA coordinates and maintains the global standard for ISIN (International Securities Identification Number) assignment through a network of National Numbering Agencies (NNAs). It also contributes to global identifiers such as the FISN (Financial Instrument Short Name) and CFI (Classification of Financial Instruments).

- CSDB: A centralised database managed by the ECB containing detailed reference data on securities and issuers active in euro area markets.

- RIAD: ECB-maintained database with information on financial institutions and their affiliates in the EU

- DTI foundation registry: Maintains and discloses unique identifiers for digital tokens.

250. It could be considered to leverage on both RIAD and CSDB master data repositories that are maintained by the ECB to significantly streamline the collection and processing of reference data. However, this presents several governance and operational challenges for data sharing between ESCB/ECB and markets authorities. Some CSDB data includes commercially sourced data, which may be subject to licensing agreements that prevent redistribution. This limits the current ECB's ability to legally share full data sets with non-ESCB institutions.

251. ESAP could also serve as a valuable central repository to complement and enrich asset management reporting. By providing access to publicly available disclosures, such as machine readable annual financial reports, UCITS prospectuses, PRIIPs KID, and SFDR sustainability disclosures, ESAP can help enhance transparency in the asset management sector. The potential for data reuse from ESAP, however, is currently limited to machine-readable reports. As such, the scope for integration with supervisory and statistical reporting frameworks depends on the availability of structured data formats. Where such format is used, information from ESAP could help complement or validate fund reporting under AIFMD, UCITS, MMFR, and ECB frameworks, contributing to overall data efficiency and quality.

5.5.5 Questions

Q16. Would an increase of data granularity contribute to improved data quality, usability and reduced duplications? To what extent can the greater use of international standards (e.g. CFI codes, LEIs) and master data reduce the compliance costs and improve interoperability in regulatory reporting?

Q17. What are your views on implementing security-by-security as the baseline granularity? What are the main benefits and costs of the presented options? What solutions should be envisaged to ensure a proportionate approach?

Q18. With respect to share classes, what data should be considered for reporting at the share class level? What operational challenges do you face when reporting at the share class level?

Q19. In your opinion, is it feasible to substitute aggregated reporting data with more granular data within supervisory and statistical reporting frameworks? If yes, what kind of data?

Q20. What additional areas should be investigated under the integrated reporting initiative in terms of data granularity and standardisation?

5.6 Reporting frequency

5.6.1 Current reporting frequencies

252. Evidence collected by ESMA so far proves that the frequency of reporting under different regimes varies. Depending on the nature of the reporting and the Member State (for national reporting regimes) different reporting frequencies exist: annually, semi-annually, quarterly, monthly or daily. In some cases, the frequency depends on certain characteristics of the fund or its manager, based on the principle of proportionality (as is the case for the AIFMD and MMFR framework). Data requested at higher frequencies, such as on a daily basis, typically concern core information that is readily available and can provide critical supervisory insights within a short timeframe, such as data on subscriptions and redemptions or NAV. The prevailing frequency under national reporting regimes is monthly. It should be also noted that the ECB's regulation concerning statistics on investment funds introduce 2024 introduces a general monthly reporting frequency. Further details on existing practices are included in Annex 16.

5.6.2 Proposals

253. The work on integrated reporting and the upcoming review of technical standards under AIFMD and UCITS provide an opportunity to reconsider the reporting frequencies, taking into account the existing practices, the alignment across various reporting obligations and proportionality. One option to consider could be that monthly frequency would be the baseline reporting frequency under all reporting regimes for funds. Aligning the reporting across various regimes, including the statistical reporting, may be beneficial for streamlining and integrating the reporting process for market participants and could facilitate the reuse of data by multiple authorities and for various purposes. An alternative could be to maintain the current quarterly reporting frequency for supervisory reporting under AIFMD and UCITS (at least for prudential indicators) that, on the one hand, could reduce the obligations under these directives, but on the other hand, could lead to lower level of integration in a broader context.

254. In order to ensure a proportionate approach, there should remain a mechanism allowing for less frequent reporting, as it currently exists under the AIFMD and MMFR reporting frameworks. However, the criteria should be carefully considered to have a balanced approach ensuring both the completeness of the criteria and the possibility to apply them in straightforward manner, to avoid unnecessary burden and to provide for a more stable obligations over time, i.e. to avoid too frequent changes of the reporting frequency for a given entity. In particular, criteria that are less prone

to changes over time could be considered, e.g. whether the fund is open-ended or close-ended.

255. Furthermore, the valuation frequency could be another factor to justify less frequent reporting. It is noted that for certain asset classes (e.g. real estate, private equity) the valuation is less frequent, even than the current quarterly reporting frequency under AIFMD. Therefore, aligning the reporting frequency with the valuation frequency and the type of assets the fund invests in, or introducing a derogation based on those, could be also considered as relevant criterion to lower the reporting frequency that would result in lower reporting burden for market participants, without impacting the value added of data for the authorities. However, this could be linked with a minimum frequency so that information would be reported on a regular basis even if the valuation in some cases is very infrequent.

256. Finally, the criteria could envisage daily frequency for some limited data points critical for supervision, as it is already the practice in some Member States, e.g. in relation to data on subscriptions and redemptions or NAV. Due consideration to proportionality and cost should always be given when implementing a new dataset including of a daily frequency. Reporting some data with daily granularity but with a monthly frequency (i.e. the reports would be submitted once a month but would include daily breakdowns of the respective values) could also be considered.

5.6.3 Ad-hoc reporting

257. The revised AIFMD and UCITS envisage reporting in exceptional circumstances that may be more frequent that regular reporting. Indeed, the mandate envisages that in exceptional circumstances ESMA may request the competent authorities to impose additional reporting requirements, and that ESMA shall develop the template including the minimum additional reporting requirements, to be reported by AIFMs in exceptional circumstances.

258. Similar ad-hoc reporting obligations were already imposed in the past, e.g. most recently during the COVID-19 pandemic, which involved reporting on the use of liquidity management tools, and some other relevant indicators depending on the Member State, twice a week (now this reporting is done on a quarterly basis in light of the more stable market conditions).

259. ESMA considers that a standardised template for reporting in crisis circumstances is essential to ensure the functioning of such a reporting flow. Given that this reporting could be as frequent as daily, it is understood that it could be automated by the reporting firms and an advance knowledge of the requirements is necessary to prepare the reporting systems. Such a template could include certain

key metrics to be reported daily, e.g. related to Net Assets Value or Liquidity Management Tools. However, it should be noted that the specific circumstances of the crisis could differ, and additional data elements tailored to the nature of the crisis may be also required. Certainly, it is not possible to envisage all possible circumstances in advance when developing the reporting template to be used under exceptional circumstances and such a standardised template may need to be complemented by additional ad-hoc requests.

5.6.4 Questions

Q21. Do you consider that frequency should be aligned across reporting regimes and jurisdictions? If yes, what frequency would provide the best balance of costs and benefits? What kind of challenges would you expect in implementing it?

Q22. What solutions and criteria should be envisaged to ensure a proportionate approach with respect to the reporting frequency?

Q23. Given that daily reporting requirements are already implemented in certain Member States, how such a frequency could be set up to ensure an integrated approach while avoiding a disproportionate burden for reporting entities?

Q24. How the reporting template for use in exceptional circumstances be designed to minimise the complexity for reporting entities, while ensuring sufficient flexibility to adapt to the specific nature of a crisis situation?

5.7 Other considerations

260. While this discussion paper studies several dimensions of an integrated reporting system, ESMA is conscious that there may be other topics relevant for this work that have not been studied in this. We would welcome input from market participants on the additional areas that are relevant for achieving the objectives of the integrated reporting, in particular that would contribute to simplification and burden reduction. This additional input will be considered when developing the final report.

Q25. Are there any other dimensions not considered in this discussion paper that are relevant for the establishment of a more integrated reporting system? If yes, please provide specific examples and your views on potential improvements that can be made and their priority.

6 Annexes

6.1 Annex 1. List of all questions

Q1. Do you confirm the findings presented in this stocktake section? If you have additional information, please provide all relevant details.

Q2. What are the best practices for data collection for retail investment funds in EU and non-EU jurisdictions that ESMA could consider?

Q3. What challenges arising from overlapping EU-level and national reporting obligations (e.g. under AIFMD, UCITS, MMFR) does your institution experience? Please describe specific reporting overlaps and their operational impact quantifying and providing examples of redundant submissions.

Q4. Do you support the objective of developing a more integrated reporting framework covering AIFMD, UCITS, MMFR, and ECB statistical reporting? What are the key obstacles or risks linked to integrating fund reporting frameworks?

Q5. Please list your preferred option of those listed in this section and highlight any other option or combination of the ones listed here that you consider effective. In your response, please outline the main expected costs and benefits associated with the options proposed, and identify any preconditions or phased implementation steps that would be necessary to ensure feasibility and proportionality.

Q6. To what extent should the integration or alignment of supervisory and statistical reporting extend beyond the asset management frameworks, such as EMIR, SFTR, or MiFID/MiFIR? What challenges do you foresee? Are there additional reporting regimes that should be considered for future alignment with asset management reporting?

Q7. How should this approach be implemented to ensure proportionality, efficiency, and data quality?

Q8. How can semantic data integration best be achieved across reporting frameworks? Please identify areas where alignment would be most beneficial?

Q9. Which of the proposed options do you consider most efficient? If possible, please quantify the expected cost and benefits for each option. Would you support an alternative option involving additional actors, such as centralised reporting infrastructures?

Q10. How important is it to retain the supervising NCA as an intermediary between the reporting entity and the centralised system in the reporting process?

Q11. Are there any other data sharing arrangements, either within or beyond asset management, that you believe would be beneficial for burden reduction?

Q12. Would a phased implementation of the potential changes outlined in the sections on "Integrated reporting" and "Reporting flows and data sharing" help ensure proportionality and facilitate smoother transition?

Q13. Do you consider that it would be beneficial to introduce a common standard, such as ISO 20022, across all reporting obligations within the asset management domain? What would be the costs and benefits for reporting entities of transitioning all reported data to a single standard? If ISO 20022 is not the preferred solution, what alternatives could be considered?

Q14. What would be the main advantages and disadvantages of using respective syntaxes (XML, JSON, XBRL) for reporting frameworks in the asset management sector?

Q15. Would an increase of data granularity contribute to improved data quality, usability and reduced duplications? To what extent can the greater use of international standards (e.g. CFI codes, LEIs) and master data reduce the compliance costs and improve interoperability in regulatory reporting?

Q16. What are your views on implementing security-by-security as the baseline granularity? What are the main benefits and costs of the presented options? What solutions should be envisaged to ensure a proportionate approach?

Q17. With respect to share classes, what data should be considered for reporting at the share class level? What operational challenges do you face when reporting at the share class level?

Q18. In your opinion, is it feasible to substitute aggregated reporting data with more granular data within supervisory and statistical reporting frameworks? If yes, what kind of data?

Q19. What additional areas should be investigated under the integrated reporting initiative in terms of data granularity and standardisation?

Q20. Do you consider that frequency should be aligned across reporting regimes and jurisdictions? If yes, what frequency (monthly or another) would provide the best balance of costs and benefits? What kind of challenges would you expect in implementing it?

Q21. What solutions and criteria should be envisaged to ensure a proportionate approach with respect to the reporting frequency?

Q22. Given that daily reporting requirements are already implemented in certain Member States, how such a frequency could be set up to ensure an integrated approach while avoiding a disproportionate burden for reporting entities?

Q23. How the reporting template for use in exceptional circumstances be designed to minimise the complexity for reporting entities, while ensuring sufficient flexibility to adapt to the specific nature of a crisis situation?

Q24. Are there any other dimensions not considered in this discussion paper that are relevant for the establishment of a more integrated reporting system? If yes, please provide specific examples and your views on potential improvements that can be made and their priority.

6.2 Annex 2. EU-level asset management reporting frameworks

6.2.1 AIFMD

261. The AIFMD establishes the rules for the authorisation, ongoing operation, and transparency of the AIFMs that manage and/or market AIFs in the EU. Its goal is to create an internal market for AIFs and to implement a harmonised and rigorous regulatory and supervisory framework for all AIFMs operating within the EU.

262. Specifically, under AIFMD Article 24 reporting template (Annex IV), AIFMs are required to provide periodic information on each AIF they manage.

263. Additional sets of reporting requirements are applicable to AIFMs under AIFMD regarding:

- Authorisation application (investment strategy, leverage, master AIF, fund rules, depositary)
- Notification where the total value of AuM exceeds the threshold (temporary nature or not) and 3 months following the breach
- Material changes and significant events notification (e.g., changes in ownership, investment strategy, risk profile, or fund structure).
- Ad-hoc notifications for breaches or incidents.
- Notifications under Articles 31, 32 and 33 (including cross-border notifications)
- For Article 3 registered AIFMs
    - At the time of registration:
    - Offering document / investment strategies (Level 1);
    - List of AIFs that they manage (Level 1);
    - Article 3(3)(d) information (AIFMD delegated act).
    - Value of AuM (AIFMD delegated act)

- Periodic reporting:
  - Article 3(3)(d) information to be reported on an annual basis (AIFMD delegated act Article 5(5));
  - Updated offering document (AIFMD delegated act);
- Updated list of AIFs (AIFMD delegated act).

264. Moreover, at the EU level, the obligation to produce a KID applies to AIFs marketed to retail investors when they are classified as a Packaged Retail and Insurance-based Investment Product (PRIIP) under the Packaged Retail and Insurance-based Investment Products Regulation (PRIIPs Regulation). The KID aims to provide retail investors with clear, concise, and essential information on the fund's characteristics, risks, and costs. The obligation to publish a prospectus in accordance with the Prospectus Regulation applies also to AIFs subject to an offer to the public.

6.2.2 MMFR

265. MMFR lays down uniform rules for the establishment, operation, and supervision of money market funds (MMFs) within the EU. Its objective is to ensure the stability and integrity of MMFs, enhance investor protection, and reduce systemic risk. MMFR introduces strict requirements on portfolio composition, liquidity management, valuation, and transparency, creating a harmonised regulatory framework for MMFs operating in the internal market.

266. Under MMFR Article 37, in addition to the information that the MMF manager shall report under the applicable AIFMD or UCITS Directive reporting frameworks, MMF manager shall report the following information:

a. Type and characteristics of the MMF;

b. Portfolio indicators such as the total value of assets, NAV, WAM, WAL, maturity breakdown, liquidity and yield;

c. Results of stress tests and, where applicable, the proposed action plan;

d. Information on the assets held in the portfolio of the MMF, including:

   - the characteristics of each asset, such as name, country, issuer category, risk or maturity, and the outcome of the internal credit quality assessment procedure;

- the type of asset, including details of the counterparty in the case of derivatives, repurchase agreements or reverse repurchase agreements;

e. Information on the liabilities of the MMF, including (i) the country where the investor is established; (ii) the investor category; (iii) subscription and redemption activity.

f. Specific information related to LVNAV MMF

6.2.3 UCITS

267. The UCITS Directive sets out a harmonised regulatory framework for the authorisation, supervision, structure and activities of UCITS established in the Member States and the information that they are required to publish[21]. Its purpose is to facilitate cross-border fund distribution, ensure a high level of investor protection, and maintain the stability of financial markets. The Directive establishes detailed rules on eligible assets, risk diversification, disclosure, and the organisational requirements for UCITS management companies and for investment companies that have not designated a management company.

268. The EU-level set of reporting requirements relates to registration applications at both UCITS and management company level and notifications to be submitted to:

- UCITS home Member State for:
  - Authorisation applications
  - Cross-border notifications[22]
  - Merging UCITS authorisation notification (UCITS Level 1 article 39)
- Management company home Member State for:
  - Annual report on OTC derivatives (view of the types of derivative instruments) (UCITS Implementing Act Article 45)
  - Material changes notification (e.g. changes in risk management process) (UCITS Implementing Act Article 39)

[21] Recital 4 of the UCITS Directive.
[22] In the event of a change to the information in the notification letter (including enclosed documentation) or a change regarding share classes to be marketed, the UCITS shall give also written notice to the competent authorities of the UCITS host Member State (Article 93 of the UCITS Directive).

269. The UCITS Directive mandates the publication of certain disclosure reports (an annual report and a half-yearly report, a prospectus and a KID[23]) that the management companies also have to make available to their respective NCAs. These reports can be used by the NCAs to support their supervisory activities.

6.2.4 Revised supervisory reporting frameworks

6.2.4.1 AIFMD

270. The below tables present the comparison between the current and revised AIFMD reporting framework for the authorised AIFMs and the non-authorised AIFMs:

- Table 1: Legal mandate for authorised AIFM:

Article	Current AIFMD Annex IV reporting framework	Revised AIFMD reporting framework
Article 24(1)	At AIFM level • **Principal markets and instruments** (managed AIFs) For each managed AIF • **Main instruments**, **markets** • **Principal exposures** and **most important concentrations**	**Higher granularity** at AIFM and managed AIF level • **All markets and instruments** • **All exposures** and **assets**
Article 24(2) (a)(b)(c)(e)	For each EU AIF managed and each AIF marketed in the Union • **Risk profile** and **risk management systems** (**market, liquidity, counterparty and other risks including operational risk)** • **Special arrangements** and any new arrangements for managing the liquidity of the AIF • Results of the **stress tests**	**Article 24(2)(a)** replaced by • **Risk profile** (**market, liquidity, counterparty and other risks including operational risk)** **Article 24(2) (b)(c)(e)**: Scope unchanged

[23] Or Key Investor Information Document (KIID) in case no KID is published.

Article	Current AIFMD Annex IV reporting framework	Revised AIFMD reporting framework
Article 24(2) (d)	For each EU AIF managed and each AIF marketed in the Union • **Main categories of assets** in which the AIF invested	**Replaced** by Article 24(1) new legal mandate
Article 24(2) (c)(d)(f)	N/A	**New information** for each managed AIF and marketed AIF • **Total amount of leverage** • **Delegation arrangements** • **Host Member States for marketing**
Article 24(4)	For each managed AIF employing leverage • **Level of leverage (breakdown and reuse)** • **Five largest sources of borrowed cash or securities**	**Scope unchanged**

- Table 2: Legal mandate for non-authorised AIFM:

Who	Article	Current AIFMD Annex IV reporting framework	Revised AIFMD
Registered AIFM with minimum reporting requirements	**Article 3(3)(d)**	**At AIFM level** • **Main instruments in which the AIFM is trading**	**Scope unchanged**
		For each managed AIF • **Principal exposures** • **Most important concentrations**	**Scope unchanged**

Non-EU AIFM under Private placement regime (PPR)	**Article 42(1)(a)**	Article 24 reporting requirements applicable to **AIFs marketed in the Union**	**Scope unchanged**

271. While the revised framework introduces some additional data points, its overarching objective remains the reduction of the overall reporting burden through greater standardisation and improved data efficiency.

6.2.4.2 UCITS

272. The revised UCITS Directive has introduced a harmonised reporting framework for UCITS. Under new Article 20a of the UCITS Directive, UCITS management companies will be required to report to the competent authorities of the UCITS home Member State information that aligns with the reporting obligations set out under both Directives.

Table 3: Legal mandate for UCITS:

Article	New UCITS reporting framework
Article 20a(1)	At Management company level • **All markets and instruments** For each managed UCITS • **All instruments, all markets** • **All exposures** and **assets**
Article 20a(2) (a)(b)(c)(d)(e)	For each UCITS managed • **arrangements for managing the liquidity of the UCITS** (current selection of liquidity management tools, any activation or deactivation) • **Risk profile** (market, liquidity, counterparty and other risks including operational risk) • **Total amount of leverage** • Results of the **stress tests** • **Delegation arrangements** • **Host Member States for marketing**

6.3 Annex 3. National reporting frameworks

6.3.1 UCITS

273. Prior to the introduction of the revised UCITS supervisory reporting framework, several EU Member states had established national supervisory reporting regimes tailored to their domestic supervisory needs and risk assessments. These national frameworks enabled NCAs to collect data they considered essential for effective supervision of UCITS funds. By collecting information such as detailed breakdowns of portfolio composition, liquidity profiles, risk metrics, and investor characteristics, NCAs were better positioned to monitor fund behaviour, identify potential vulnerabilities, and respond swiftly to local market developments or emerging systemic risks..

6.3.2 AIFMD

274. Additional reporting obligations may be imposed on certain types of AIFs such as real estate funds or private equity funds.

275. While the AIFMD only provides a general framework for the marketing of AIFs across the EU, Member States have the discretion to impose additional restrictions or requirements when AIFs are marketed to retail investors.

276. Marketing may be restricted based on:

- AIF structure (closed-ended funds, regulated AIFs under national regime, European Long Term Investment Funds (ELTIFs))
- AIFM characteristics (restriction to large AIFM as per national classification)
- Asset composition (limitation on certain asset classes)

277. These national measures may include supplementary reporting obligations to ensure that retail investors receive adequate information and to strengthen regulatory oversight.

278. In some jurisdictions, NCAs apply the same reporting regime to both UCITS and AIFs marketed to retail investors. Some NCAs may also require additional periodic reporting, such as monthly or quarterly submissions, covering aspects like fee structures, the use of derivatives, or ESG-related features.

6.4 Annex 4. Statistical reporting frameworks

279. The ECB has a competence to adopt statistical regulations for its own purposes as laid down in Council Regulation 2533/98 [24].

6.4.1 Investment funds other than MMFs

280. The framework for the collection of statistics on investment funds is laid down in Regulation (EU) 2024/1988 of the European Central Bank of 27 June 2024 (ECB/2024/17) that is complemented by Guideline (EU) 2024/2798 of the European Central Bank of 10 October 2024 amending Guideline (EU) 2021/831 on statistical information to be reported on financial intermediaries other than monetary financial institutions (ECB/2021/12) (ECB/2024/27). It is a recast of Regulation (EU) No 1073/2013 of the European Central Bank of 18 October 2013 concerning statistics on the assets and liabilities of investment funds (ECB/2013/38). The new Regulation applies from 1 December 2025, with the exception of Article 10, which applies from the entry into force of the Regulation.

281. It sets out harmonised reporting obligations for investment funds domiciled in the euro area, with a particular focus on the regular collection of balance sheet and revaluation data. The primary purpose of investment fund statistics is to provide policymakers with a comprehensive and timely picture of developments in the euro area investment fund sector.

282. The recast Regulation introduces a general monthly reporting frequency, granular reporting of securities without publicly available identification codes, additional asset and liability breakdowns and information on income, fees and the classification of investment funds. NCBs may grant derogations on the reporting frequency to the smallest investment funds whose valuation frequency is less than monthly. In that case statistical information should be reported on a quarterly basis. NCBs may grant additional derogations from the statistical reporting requirements to investment funds that are subject to national accounting rules which do not require frequent valuation of fund assets. Under such circumstances, NCBs may permit these investment funds to report the required statistical information with the same timeliness as the valuation frequency imposed under applicable national accounting

[24] See Opinion of the European Central Bank of 9 August 2022 on a proposal for a directive as regards delegation arrangements, liquidity risk management, supervisory reporting, provision of depositary and custody services and loan origination by alternative investment funds (CON/2022/26) 2022/C 379/01: The ECB is cooperating with ESMA in the preparation of the report for the development of an integrated supervisory data collection so as to ensure consistency with other reporting requirements for investment funds. It has, however, noted that the integration of the underlying reporting infrastructure must not interfere with or otherwise prejudice the ECB's competence to adopt statistical regulations for its own purposes or to continue to include the full set of relevant statistical reporting requirements in relevant ECB regulations.

rules. In addition, NCBs may also grant specific derogations on granular reporting for securities without publicly available identification codes.

6.4.2 MMFs

283. Regulation (EU) 2021/379 of the European Central Bank of 22 January 2021 on the balance sheet items of credit institutions and of the monetary financial institutions sector (ECB/2021/2) is applicable to MMFs. The Regulation is complemented by Guideline (EU) 2021/830 on balance sheet item statistics and interest rate statistics of monetary financial institutions, which sets out the common rules for collection and treatment of that information.

284. This framework mandates harmonised monthly and quarterly data submissions to ECB on MMFs resident in the euro area, covering granular information on assets, liabilities, transactions, and valuation. The reporting aims to support the Eurosystem's monetary policy and financial stability analysis. While closely aligned with the broader investment fund statistical framework, the MMF-specific requirements reflect the unique role of these funds in short-term funding markets.

6.4.3 Securities holdings

285. The framework for the collection of Securities Holdings Statistics is laid down in Regulation (EU) 1011/2012 of the European Central Bank of 17 October 2012 concerning statistics on holdings of securities (ECB/2012/24) this Regulation was amended by ECB/2015/18, ECB/2016/22 and ECB/2018/7. The Regulation is also complemented by Guideline (EU) 2013/215, amended by ECB/2015/19, ECB/2016/23 and ECB/2018/8, which sets out the procedures to be followed by NCBs when reporting the data to the ECB.

286. The ECB framework on securities holdings establishes a harmonised framework for the collection of granular securities held by euro area resident sectors. The purpose is to provide the ECB with information on the exposures of economic sectors and of individual banking groups in case of Systematically Important Banks in the euro area Member States to specific classes of securities and on links between economic sectors of holders and issuers of securities, and on the market for securities issued by euro area residents. Holdings data are collected on a security-by-security level and are broken down by instrument type, holder country and further classifications. For certain sectors, data are collected directly from investors (mainly investors from the financial sector including investment funds and MMFs). For other sectors, data are collected via custodians.

287. Information is reported by sectoral data reporting agents (resident monetary financial institutions, investment funds, financial vehicle corporations and custodians) and group data reporting agents (heads of banking groups and institutions or financial institutions established in participating Member States, and which are not part of a banking group). When a monetary financial institution, investment fund or financial vehicle corporation does not have legal personality under its national law, the persons legally entitled to represent it, or in the absence of formalised representation, persons that under the applicable national laws are liable for its acts, are responsible for reporting. This information is provided to euro area NCBs and forwarded to the ECB, or directly to the ECB if the relevant NCB decides that group data reporting agents should report statistical information to the ECB. The frequency of reporting of the analysed tables is monthly and quarterly.

288. For investment funds, this data complements above statistical reporting frameworks by providing a more detailed picture of exposures, position/stocks and transactions.

6.4.4 Integration of statistical reporting by NCBs

289. The entities subject to reporting obligations are required to submit periodic statistical data to the competent NCB. The information is reported by investment funds/MMFs resident in the territory of the euro area Member States.

290. The reporting frequency is defined by national implementation but follows at least the ECB's regulatory standards, typically monthly or quarterly, depending on the type of the fund. Each NCB acts as an intermediary collection body within its jurisdiction before standardising the data for transmission to the ECB. NCBs may apply additional reporting requirements in terms of reporting frequency, coverage and granularity and collect data via their own portals or systems. NCBs retain discretion in the operational implementation of these requirements within their jurisdictions. In practice, some NCBs choose to integrate ECB statistical reporting obligations into a consolidated reporting template covering AIFs, UCITS and MMFs.

291. In Member States where the NCB also performs the role of the NCA for the supervision of investment funds, the reporting architecture may be further streamlined through the integration of statistical and supervisory reporting frameworks. In such cases, the unified authority may develop and implement a combined reporting framework that concurrently satisfies:

- The ECB's statistical reporting requirements;

- Supervisory national reporting obligations under AIFMD, the UCITS Directive, and MMFR on top of the EU-level reporting framework.

- The ECB receives harmonised datasets from all NCBs and compiles euro-area-wide statistical data.

6.5 Annex 5. High level comparison of asset management reporting frameworks (AS-IS)

	Existing supervisory reporting			Statistical reporting	
	Current AIFMD	**UCITS**	**MMFR**	**IFS (from December 2025)**	**MMF**
Fund type	AIFs	UCITS	AIFs and UCITS authorised as money market funds	AIFs and UCITS	Money market funds
Reporting scope	1. AIFM for all managed AIFs under Article 24(1) 2. Each managed EU AIF and each AIF marketed in the Union under Article 24(2) 3. For each leveraged managed AIF under Article 24(4)	Depends on national reporting regime	All AIFs and UCITS authorised under Article 4	Depends on fund type and geographical coverage	Depends on fund type and geographical coverage
Geographical coverage	1. EEA for EU-level reporting template 2. Additional national reporting regimes may exist	No EU-level reporting template Only national reporting regimes	1. EEA for EU-level reporting template 2. Additional national reporting regimes may exist	Euro area and voluntary for non-euro area	Euro area and voluntary for non-euro area

	Existing supervisory reporting			Statistical reporting	
	Current AIFMD	**UCITS**	**MMFR**	**IFS (from December 2025)**	**MMF**
Reporting entities	AIFM	UCITS or UCITS management company	MMF managers	Investment funds	MMFs
Collection bodies	1. NCA of the AIFM home member State 2. NCA of the AIF home Member State may collect additional reports	NCA of the UCITS home Member State	NCA of the MMF home member State	1. NCB	1. NCB
Reporting frequency	Reporting frequency depends on level 2 AuM thresholds, leverage and whether the AIF is an unleveraged AIF investing in non-listed companies and issuers to acquire control: 1. Quarterly 2. Semi annually 3. Annually	Depends on national reporting regime	1. Quarterly 2. Annually (below level 1 threshold)	1. Monthly 2. Quarterly (very few derogations)	1. Monthly 2. Quarterly (few derogations)
Reporting timeline	1. Within 1 month after reporting period end date	Depends on national reporting regime	Within 1 month after reporting period end date	NCBs should transmit aggregated data to the ECB,	NCBs should transmit aggregated data to the ECB,

	Existing supervisory reporting			Statistical reporting	
	Current AIFMD	**UCITS**	**MMFR**	**IFS (from December 2025)**	**MMF**
	2. Within 45 days for Fund of Funds)			usually by T+28 working days.	usually by T+28 working days.
Main dimensions	Fund type, Fund strategy, Asset type, Market, Counterparty, Currency, Country (issuer, counterparty, funding), Investor metrics, Risk profiles, Stress tests	Depends on national reporting regime	MMF type, Asset type, Instrument, Marketing host Member States, Master-feeder structures, Counterparty, Portfolio indicators, Stress tests, Investor metrics, LVNAV metrics	Instrument (maturity, currency, sector, country of the issuer), Transactional flows	Instrument (maturity, currency, sector, country of the issuer),
Granularity	Aggregated Top-ranking approach	Depends on national reporting regime	Granular (security-by-security)	Granular (security-by-security)	Aggregated and granular (security-by-security)
Reporting format	Proprietary XML schemas	Mainly proprietary XML schemas (Other applicable formats: csv, online form, XBRL)	ISO 20022 XML schema	1. Mainly proprietary XML schemas for reporting to NCBs (Other applicable formats: csv, online form, XBRL) 2. SDMX format for reporting to ECB	1. Mainly proprietary XML schemas for reporting to NCBs (Other applicable formats: csv, online form, XBRL) 2. SDMX format for reporting to ECB

6.6 Annex 6. Main overlaps within asset management reporting frameworks

	Overlaps within EU supervisory reporting frameworks (AIFMD/MMFR)	Overlaps in supervisory and statistical reporting frameworks	Additional overlaps in national reporting regimes (UCITS)
Fund characteristics	Investment strategy Investor type Fund classification Inception date Base currency Master/feeder structure	Investment strategy Fund classification	Open-ended/Closed-ended Active/Passive SFDR compliance Dividend distribution policy Information on real estate Benchmarks Depository
Fund assets and exposures	Portfolio composition (asset type, valuation) Asset country Time to liquidate Information on financing	Quantity, Total amount Maturity bucket, Maturity date Currency Security price Counterparties Information on financing	Yield Investment grade Seniority Anti-money laundering information
Fund investors	Redemption frequency Subscriptions Redemptions	Subscriptions Redemptions	N/A
Fund metrics	Total NAV NAV per share	Accrued interests Payment to investors	Asset under management Valuation method

	Overlaps within EU supervisory reporting frameworks (AIFMD/MMFR)	Overlaps in supervisory and statistical reporting frameworks	Additional overlaps in national reporting regimes (UCITS)
	Stress tests Risk measures Leverage amounts	Turnover/Purchases and sales	Value at Risk Income type

6.7 Annex 7. Main data point gaps between asset management reporting frameworks

	Data points specific to EU supervisory reporting (AIFMD/MMFR)	Data points specific to statistical reporting frameworks	Data points specific to national reporting regimes
Fund identifier	AIFMD: SEDOL, CUSIP, Bloomberg/Reuters code	RIAD code	N/A
Fund characteristics	AIFMD: Prime broker, NAV change, Time-to-redeem MMFR: Staff with savings plan, Predominant share class, Corporate events, Credit assessment, Notice period, Estimated/Precise value	Registered shares/units or Bearer shares/units	Valuation date Benchmarks, Ratings LMTs Distribution channels Legal structure Share class level (fees, costs, derivatives instruments, launch/closing date)

	Data points specific to EU supervisory reporting (AIFMD/MMFR)	Data points specific to statistical reporting frameworks	Data points specific to national reporting regimes
Fund assets and exposures	AIFMD: Short position hedging, SEDOL, CUSIP, Bloomberg/Reuters code MMFR: CFI codes, Liquidity buffer qualification, Reset date, Contract type, Derogations	N/A	Coupon type/frequency/rate, Pool factor
Fund metrics	MMFR: Threshold events, WAM, WAL, LVNAV, Cumulative returns, Calendar year performance, Monthly portfolio volatility (including shadow NAV)	N/A	Equalisation, Taxation Average daily volumes

6.8 Annex 8. Main data semantics gaps between asset management reporting frameworks

	Data semantics gaps between EU supervisory reporting (AIFMD/MMFR)	Data semantics gaps between supervisory and statistical reporting frameworks	Data semantics gaps with national reporting regimes
Fund characteristics	Fund classification Fund strategy	Fund classification Fund strategy Fund residence definition	Fund classification Fund strategy
Fund assets and exposures	Asset type	Assets under management valuation method	Assets under management valuation method

	Data semantics gaps between EU supervisory reporting (AIFMD/MMFR)	Data semantics gaps between supervisory and statistical reporting frameworks	Data semantics gaps with national reporting regimes
		Asset type Maturity bucket Investor group Intra-group definition	Asset type Maturity bucket Investor group

6.9 Annex 9. Key semantic divergences across asset management reporting frameworks

Asset classification

292. Asset classification depends on specific regulatory, statistical and accounting definitions which may vary between jurisdictions or reporting instructions. Asset classification may come from EU sectorial legislations (e.g. UCITS Directive or the MMF Regulation).

293. For statistical reporting framework, asset classification is based on the ESA 2010 instrument classification. Above these broad classes of instruments, specific classification may be defined to better categorise financial derivatives, leveraged loans or real estate. Therefore, asset classification in regulatory reporting is highly fragmented, with over 50 different classifications potentially being requested for the same instrument across different reporting frameworks. This creates duplicative reporting burdens, inconsistencies, and additional compliance costs for fund managers.

Fund classification

294. Fund classification under the AIFMD is primarily based on fund type and investment strategy, with a particular focus on hedge funds. However, more than 50% of aggregate NAV is classified as “other funds”, a broad category that mainly includes equity, fixed income and mixed funds. This classification does not allow either for the identification of the funds for which specific fund Regulations were introduced such as the European Long-Term Investment Funds (ELTIFs), MMFs, EuSEFs and EuVECAs.

295. The ECB investment fund statistics reporting framework bases its fund classifications on additional aspects such as the investment style (active, passive synthetic, passive physical), dividend distribution policy (distribution fund, cumulative fund, mixed dividend distribution fund) with additional classification related to real estate, exchange-traded and private equity funds. Furthermore, the taxonomy used to classify the investment policy may diverge from the fund type taxonomy applied in the context of AIFMD reporting.

Asset under management (AuM)

296. The concept of AuM is a critical metric for AIFs but does not exist under the UCITS directive.

297. Under the ECB statistical reporting framework, initial positions are recorded on the balance sheet at market value. Subsequent changes in value are recorded either as transactions, when resulting from purchases, sales, or other financial operations, or as revaluation adjustments in the case of market price changes, exchange rate fluctuations, or other valuation factors. This approach ensures that assets and liabilities reflect up-to-date market valuations.

298. Under AIFMD Annex IV, market values are specifically required in several areas including for:

- The buys and sells corresponding to the total number of transactions carried out using a high frequency algorithmic trading technique;

- The value of turnover for each asset class in which the AIF invests;

- The information on trading and clearing mechanisms.

Look through requirements

299. The ECB statistical reporting framework does not mention look-through requirements regarding counterparties designed to obtain get information on the ultimate risk holder. However, given that investment funds report data on a fund-by-fund and security-by-security basis, these data could to some extent be used to look through the investment fund shares held.

300. Under AIFMD or UCITS, reporting obligations may have to follow the applicable look-through requirements. Regarding counterparty and risk exposure, ultimate issuers or counterparties should be identified particularly for the application of concentration limits.

6.10 Annex 10. Indicative reporting fields identified for consideration in future templates

301. Based on the answers to the questionnaire shared with authorities in the preparation of this discussion paper, authorities mentioned a non-exhaustive list of reporting fields that may be considered in the future reporting template:

- List of distributors and independent financial advisors;

- Information on the global custodian selected for the fund (if applicable);
- Information related to the Sustainable Finance Disclosure Regulation (SFDR);
- Relevant CFI (Classification of Financial Instruments) and MIC (Market Identifier Code) related to instrument portfolio holdings;
- Detailed information at share class level (costs/fees, investor characteristics, Total Net Asset Value (NAV), AuM);
- Data on the availability and use of Liquidity Management Tools (LMTs);
- Last calculation date of the NAV;
- Most relevant benchmark;
- Management style (such as passive or active); and
- Specific information on real estate and private equity funds.

6.11 Annex 11. EU-level data dictionary initiatives

European Commission Supervisory Data Strategy – work on a common data dictionary for the financial services

302. As set out in the Commission's supervisory data strategy, building a common data dictionary in the EU financial services will be key to ensure consistency of reporting requirements and data standardisation. Having common standards to define the content and format of the data to be reported will also make it easier to share and reuse the data for different purposes. In addition, the data dictionary will contribute to other longer-term goals such as making reporting requirements machine-executable. Building on the efforts of the European Supervisory Authorities and other relevant authorities to develop sectoral dictionaries in their domains, the longer-term aim is to have a common dictionary in EU financial services.

Integrated reporting initiative in the banking sector (the Joint Bank Reporting Committee)

303. The **Joint Bank Reporting Committee (JBRC)** is a collaborative initiative established by the European Central Bank (ECB) and the European Banking Authority (EBA) to enhance the efficiency and standardisation of data reporting within the banking sector. By harmonizing these reporting requirements, the JBRC seeks to reduce the reporting burden on banks and improve the quality of the data collected The committee includes representatives from the ECB, EBA, European Commission, Single Resolution Board (SRB), and relevant national authorities.

DPM alliance

304. The DPM Alliance in the banking sector is a collaborative initiative established by the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA), and the European Central Bank (ECB). This alliance aims to govern the Data Point Model (DPM) 2.0 standard, which is designed to harmonize and streamline regulatory reporting across the financial sector. By creating a common governance framework, the DPM Alliance facilitates efficient data exchange, reduces duplication of efforts, and promotes best practices in regulatory reporting The DPM 2.0 standard provides a structured representation of data required for regulatory purposes, integrating various technical standards and guidelines to ensure consistency and clarity in data reporting [2]. This initiative is a significant step towards building an integrated reporting system that enhances transparency and efficiency within the European financial regulatory landscape

ECB data dictionary initiative

305. The Single Data Dictionary (SDD) initiative by the ECB represents also a valuable experience in terms of data dictionary. The SDD is a component of the Integrated Reporting Framework (IReF) project. It aims to

a. provide a centralised, standardised glossary of data attributes, definitions, formats, and classifications.

b. eliminate inconsistencies across different reporting frameworks.

c. promote reusability and interoperability of reported data across statistical, prudential, and supervisory domains.

306. The SDD acts as a semantic bridge between different reporting frameworks and supports integration with SDMX and DPM (Data Point Model)/XBRL taxonomies used in frameworks such as FINREP and COREP. The SDD is based on the

SMCube methodology that serves as the basis for the construction of metadata and provides the structure for metadata-driven systems. The metadata, constructed in line with the SMCube methodology, can serve as parameters for the system, so that the definition and management of new datasets is as parametrised as possible from the start, resulting in enhanced collaboration between datasets and in the minimisation of new IT developments.

6.12 Annex 12. Overview and role of the CSDB in ECB Security-by-Security reporting

307. The CSDB is a comprehensive security-by-security database maintained by the ECB and the ESCB. It provides detailed information on financial instruments issued or held within the EU such as on the issuer classification, issuance currency, maturity and covers ISIN-level data for securities (bonds, equities, asset-backed securities, etc.). The CSDB integrates data from multiple sources, including NCBs, commercial data vendors, and other financial institutions. In general, benefiting from the CSDB enrichment, reporting agents are required to report two of the following three variables: (1) number of units (equity) or aggregated nominal amount (debt); (2) security price; and/or (3) total amount. The missing third value out of "number of units or aggregated nominal amount", "price" and "total amount" is also derived, based on the two reported values.

6.13 Annex 13. Entities on which fund managers report

Counterparties

308. Counterparties represent who the fund transacts with (e.g., for derivatives, repos, securities lending) and are important for performing credit and counterparty concentration risk analysis as well as systemic risk monitoring (including interconnectedness within the financial system). Retrieving information on the counterparties is also essential for monitoring compliance with counterparty diversification rules under the UCITS Directive.

309. AIFMD current reporting template requires fund managers to report:

- the country of the three main funding sources based on the country of the counterparties of the liabilities
- the LEI (where available) and name of the top five counterparties to which the AIF has the greatest exposure

- the LEI (where available) and name of the top five counterparties that have the greatest exposure to the AIF[25]

- the LEI (where available) and name of the counterparty of the ten principal exposures by position type and asset type

- the LEI (where available) and name of the counterparty of the five most important portfolio concentration by position type, asset type and market

- metrics related to counterparties as per their clearing classification (CCP, bilateral clearing, triparty repos)

- the LEI (where available) and names of the top three CCPs with greatest exposure

- metrics related to the potential rehypothecation performed by counterparties on the collateral that has his been posted to them

- the LEI (where available) and name of the counterparty of the five largest sources of borrowed cash or securities

310. The MMFR current reporting template requires MMF managers to report the LEI (where available) and names of all the counterparties in the context of derivative, repurchase agreements/reverse repurchase agreements and deposit/ancillary liquid holdings.

311. The statistical reporting templates may require fund managers to report the country of the registered office and economic sector of the counterparties where relevant.

Issuers

312. Issuers represent who issued the financial instruments held in the portfolio (bonds, equities, etc.) and are important to understand the underlying economic exposure of the fund and enable market risk assessments, including credit quality and sector concentration. It supports also sectoral and geographical breakdowns.

[25] As per AIFMD reporting guidelines, the top five counterparties includes inter alia counterparties issuing bonds or shares or underlyings to financial derivative instruments as well as counterparties to financial derivative instruments

313. Under AIFMD current reporting framework, issuer country related information is mostly used when retrieving geographical exposure information as fund managers must report asset exposures broken down by region.

314. Under UCITS, some issuer diversification limits and higher exposure thresholds depend on the sector of the issuer (sovereign or public body). It also matters for the compliance to UCITS and MMFR diversification rules. Indeed, not more than 5% of investments in transferable securities or money market instruments may be issued by the same body (subject to certain exceptions). MMFR reporting template requires MMF managers to report the LEI, name and sector of the issuer of the money market instruments and the LEI and country of the MMF holdings.

315. The statistical reporting templates require fund managers to report the identification (LEI where available), or alternatively name, country and economic sector of the issuer for securities without an ISIN or another valid identification code in accordance with the relevant NCB's instructions.

Securitisation parties

316. In relation to the securitisations, the original lender is the entity that had the original credit exposure whereas the originator initiates the securitisation (by participating in the initial agreement leading to the establishment of the securitisation or by purchasing the exposures from a third party and securitising them). A sponsor is typically a credit institution or an investment firm that may establish and manage a securitisation. Original lender, originators and sponsors are different from the Special Purpose Vehicle (SPV) that issues the securitisation and is usually created solely for the purpose of the securitisation. Original lenders/Originators/Sponsors of the securitisation are important to monitor systemic risk to identify interconnectedness as the same entity may be behind many securitisations held by the fund.

317. MMFR reporting template requires MMF managers to report the LEI, name and sector of the sponsor of the securitisation.

Depositories

318. The depository is responsible for the safekeeping of fund assets and is important to assess the potential operational and counterparty risks associated with it.

319. MMFR current reporting template requires MMF managers to report the LEI, national identifier and name of the depository. The identification of the depository is also made available at the annual and semi-annual reports and in the KID.

Shareholders

320. Share/unit holders (investors) represent who owns the fund's units or shares and are important to provide insights into the investor base (retail versus institutional) and retrieve information on cross-border flows (including in relation with FX conditions). It is also essential to identify concentration risks and liquidity risk monitoring. In addition, it is used to support anti-money laundering and know-your client (KYC) compliance.

321. Under AIFMD current reporting framework, fund managers must report data by investor domicile through geographical breakdown and they are also required to report investor concentration (e.g., % of NAV held by top five investors).

322. The statistical reporting templates require fund managers to report information on the investor predominant base (professional, retail, mixed investors) They should also report on residency and institutional sector breakdown of the holders of investment fund. Specific reporting instructions may apply to registered shares/units and bearer shares/units and information may be derived on the basis of available information including the reporting concerning statistics on holdings of securities. Information may be also required from the financial institutions acting as a custodian of investment fund bearer shares/units.

6.14 Annex 14. Stocktake of share class reporting

323. AIFMD reporting template includes the share class codes (national code, ISIN, SEDOL, CUSIP, Bloomberg code, Reuters code) and names. But it does not include information on all the share class currencies, nor the NAV of each share class. Information on investor redemptions is retrieved for the largest share class by NAV (redemption frequency) or as a weighted metric (Redemption notice period).

324. MMFR reporting template requires MMF managers to report the ISIN, name and currency of all the share classes including a flag identifying the share class with the highest NAV. The cumulative returns breakdown, the calendar year performance

breakdown and redemption notice period should only be reported for the most representative share class whereas the investor concentration is reported as a weighted metric.

325. Investment funds shall report the monthly income received and dividends paid for each share class issued by the investment fund as part of the statistical information regulatory framework. Under national reporting regimes, investment funds may also report information such as the share class identifiers, currency denomination, hedging status, distribution policy, minimum subscription amounts, target investor type and NAV at the share class level.

326. It is worth mentioning that the KID applicable to UCITS is also produced for each issued share class.

6.15 Annex 15. Data standards

327. A key factor that facilitates the transition to an integrated reporting is the implementation of standardised identifiers and classifications. This approach allows authorities to integrate and analyse data sets more effectively while simultaneously reducing compliance costs for reporting entities. Widely adopted standards for basic concepts, including country codes, currency codes, and date and time formats, have demonstrated their effectiveness. Standards for identifying more complex concepts have been developed over the last twenty years and can be directly referenced in EU sectoral legislation.

328. When comparing the asset management reporting frameworks, there are significant differences.

Table 6: Overview of referenced identifiers

Framework	BIC	LEI	ISIN	FISN	CFI	MIC	NACE	ESA 2010	SEDOL	CUSIP	UPI	UTI	RIAD code	National code
AIFMD	X	X	X			X			X	X				X
MMFR framework		X	X		X									X
UCITS national regime		X	X			X		X						X

Framework	BIC	LEI	ISIN	FISN	CFI	MIC	NACE	ESA 2010	SEDOL	CUSIP	UPI	UTI	RIAD code	National code
AIFMD national regime		X	X			X		X						X
ECB reporting framework		X	X										X	X
EMIR		X	X		X	X	X				X	X		
SFTR		X	X				X					X		
MiFID/MiFIR		X	X	X	X	X								

329. **Error! Reference source not found.**6 provides an overview of different identifiers and classifications referenced in the various reporting frameworks applicable to fund managers particularly those used for identifying legal entities, instruments and markets. As it can be seen in that table, International Securities Identification Number (ISIN) and the Legal Entity Identifier (LEI) are referenced in all the frameworks. The way in which these identifiers are referenced differs, e.g. in terms of whether their use and reporting are mandatory or not.

330. LEI is a positive example of an international standard, defined in ISO standard 17442, which can bring significant benefits for reporting entities and authorities. Information associated with LEI is freely available on a daily basis on the Global LEI Foundation (GLEIF) website. Making the LEI mandatory under MiFID, EMIR and SFTR is a strong example of the benefits that standardised identifiers bring to regulatory reporting and market transparency. The LEI ensures that all legal entities are uniquely and unambiguously identified across different reporting frameworks. This reduces the risk of duplication, misidentification, or inconsistent reporting of counterparties, especially when firms operate across borders. Authorities can also more easily monitor cross-border activity, improving supervision of systemic risks.

6.16 Annex 16. Reporting frequencies

331. The prevailing frequency under national reporting regimes is monthly. 14 Member States provided examples of various reporting obligations where data is reported on a monthly basis, either to securities markets authorities or to national central banks. It should be also noted that the ECB's regulation concerning statistics

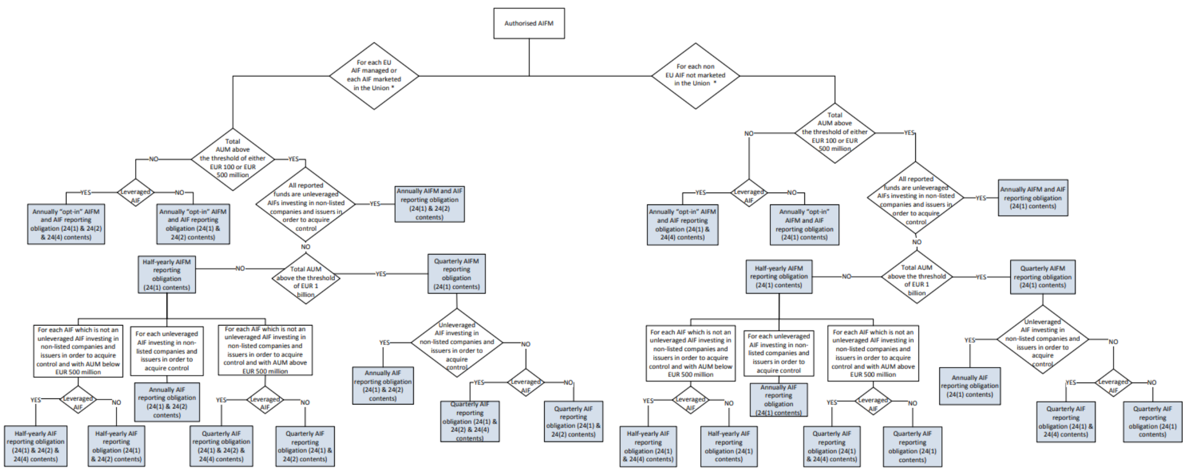
on investment funds adopted in 2024 introduces a general monthly reporting frequency.

332. The existing EU-wide reporting regimes, such as under AIFMD and MMFR, provide for quarterly reporting frequency as the baseline. This frequency prevails in the reporting regimes of a few Member States, CY, LI, DE, NL, NO, PT, SE.

333. However, a few Member States, e.g. FR, IE, SI, HU, require some information to be reported on a daily basis. This is typically limited to critical supervisory information, such as data on subscriptions and redemptions or NAV. Furthermore, investment funds are, in the relevant cases, subject to daily reporting obligations under specific legislation, e.g. MiFIR, EMIR.

334. Divergent frequency of reporting obligations could lead to increased burden for reporting entities, in particular in case they are subject to reporting obligations in different Member States. However, alternate frequencies benefit supervisory work as receiving all important reporting concurrently would increase the supervisory burden and would impede effective data driven supervision.

335. It should be noted that the reporting regimes may include specific rules allowing for a proportionate approach and less frequent reporting under certain circumstances. For example . under AIFMD, the frequency (quarterly, half-yearly and yearly) and the scope of reporting depend on criteria such as AUM, whether the AIF is leveraged or not.[26] According to these rules, around 70% of funds are subject to quarterly reporting obligation, whereas the remaining funds report on half-yearly (10%) or yearly basis (20%).



[26] Guidelines on reporting obligations under Articles 3(3)(d) and 24(1), (2) and (4) of the AIFMD

336. While such rules allow for decreasing the reporting obligations under specific circumstances, the rules themselves are very complex and may lead to situations where the reporting obligations could change for a given fund frequently, if the respective indicators used to determine the reporting frequency are close to the thresholds and change from one quarter to another.

7 Legislative references used in this consultation Paper

UCITSD	Directive 2009/65/EC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)
AIFMD	Directive 2011/65/EU on Alternative Investment Fund managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010
AIFMD Level 2	Commission Delegated Regulation (EU) No 231/2013 supplementing Directive 2011/61/EU of the European Parliament and of the Council with regard to exemptions, general operating conditions, depositaries, leverage, transparency and supervision
UCITS Level 2 Directive	Commission Directive 2010/43/EU implementing Directive 2009/65/EC of the European Parliament and of the Council as regards organisational requirements, conflicts of interest, conduct of business, risk management and content of the agreement between a depositary and a management company
UCITS Level 2 Regulation	Commission Delegated Regulation (EU) 2016/438 supplementing Directive 2009/65/EC of the European Parliament and of the Council with regard to obligations of depositaries
MMFR	Regulation (EU) 2017/1131 on money market funds

8 Terms, abbreviations and acronyms used in this discussion Paper

AIFM	Alternative Investment Fund Manager
AIFMD Annex IV	AIFMD Annex IV refers to the regulatory reporting template that AIFMs must submit to NCAs under AIFMD.

ANNA	Association of National Numbering Agencies
Annual report	The set of documents to make public by undertakings under Article 33 of Directive 2013/34/EU including the annual financial statements and the management report. Annual reports also include the annual financial reports.
ARM	Approved Reporting Mechanism
AuM	Asset under Management
BIC	Business Identifier Code
CCP	Central Counterparties
CFI	Classification of Financial Instruments
CNAV	Constant Net Asset Value
CSDB	Centralised Securities Database
CSV	Comma separated values
CUSIP number	Number assigned by the Committee on Uniform Securities Identification Procedures
Data dictionary	Data dictionary represents a way to store and manage the metadata. It can cover the business terms and other definitions (semantics) which are structured in a formal and standardised manner to enable automation and digital processing (syntactic) and are supported by IT systems and infrastructures (tools).
Regulatory data dictionary (RDD)	Regulatory data dictionary (RDD) describes all the data concepts required in their regulatory frameworks and, in addition, all the transformations and derivate concepts regulators produce internally or receive from external parties. The RDD can be used by institutions to describe and store data and transformations under the same syntactic model and integrate semantically with the other stored definitions.
DLT	Distribution Ledger Technology
DQEF	Data Quality Engagement Framework
DTI	Digital Token Identifier
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank
EDGAR	Electronic Data Gathering, Analysis, and Retrieval
EIOPA	European Insurance and Occupational Pensions Authority
ELTIF	European Long Term Investment Funds
EMIR	European Market Infrastructure Regulation
ESA	European Supervisory Authority
ESA 2010	European system of accounts
ESAP	European Single Access Point

ESCB	European System of Central Banks
ESEF	European Single Electronic Format
ESG	Environmental, social and governance
ESMA	European Securities & Markets Authority
ESRB	European Systemic Risk Board
ETF	Exchange-Traded Fund
EU	European Union
EuSEF	European Social Entrepreneurship Fund
EuVECA	European Venture Capital Fund
FIRDS	Financial Instruments Reference Data System
FSIN	Financial Instrument Short Name
Fund	a collective investment undertaking (as defined in Article 1(2)(a-b) of the UCITS Directive and Article 4(1)(a) of the AIFM Directive)
Fund managers	a) a management company (as defined in Article 2(1)(b) of the UCITS Directive); b) an investment company that has not designated a management company authorised pursuant to the UCITS Directive; c) an AIFM (as defined in Article 4(1)(b) of the AIFMD) of an AIFs; and d) an internally managed AIF in accordance with Article 5(1)(b) of the AIFMD.
GLEIF	Global Legal Entity Identifier Foundation
IReF	Integrated Reporting Framework
ISIN	International Securities Identification Number
ISO	International organisation for Standardisation
ITS	Implementing Technical Standards
JSON	JavaScript Object Notation
KID	Key information Document
LEI	Legal Entity identifier
LEI ROC Relationship Data	Centralised mapping of hierarchical LEI links
LMT	Liquidity Management Tool
LVNAV	Low Volatility Net Asset Value
Machine-readable annual report	The machine-readable layer of the annual report in an iXBRL ESEF filing.
Metadata	Any information about data. The objective of the metadata is to help the user of the data to better understand the meaning of it
MIC	Market Identifier Code
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation

MMF	Money Market Fund
NACE	Statistical classification of economic activities in the European Community
NAV	Net Asset Value
NCA	National Competent Authority
NCB	National Central Bank
NNA	National Numbering Agency
OTC	Over the counter
PRIIPs	Packaged Retail and Insurance-based Investment Products
RIAD	Register of Institutions and Affiliates Database
RTS	Regulatory technical Standards
SDD	Single Data Dictionary
SDMX	Statistical Data and Metadata eXchange
SEC	Securities and Exchange Commission
SEDOL code	Stock Exchange Daily Official List code
SFDR	Sustainable Finance Disclosure Regulation (Regulation (EU) 2019/2088)
SFT	Securities financing transactions
SFTR	Securities Financing Transactions Regulation
TR	Trade Repositories
TREM	Transaction reporting exchange interface
UCITS	Undertaking for Collective Investment in Transferable Securities
UPI	Unique Product Identifier
UTI	Unique transaction identifier
VaR	Value-at-Risk
WAL	Weighted Average Life
WAM	Weighted Average Maturity
XBRL / iXBRL	eXtensible Business Reporting Language / Inline eXtensible Business Reporting Language
XML	Extensible Markup Language
XSD	XML Schema Definition specifies how to formally describe the elements in an XML document.