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2024 Report on Quality and Use of Data

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1 Executive summary

ESMA is publishing its fifth report on the quality and use of data. This edition has further expanded the scope of the datasets covered to include ESEF and short-selling data. As shown in this report and its previous editions, data quality and data use go hand in hand and one supports the other in a virtuous manner.

On the one hand, Section 3 showcases a clear trend of increase in the data use by authorities. Data continues to support the day-to-day activities of financial regulators, and it remains essential for the achievement of the core mandates of different authorities, namely financial stability, orderly markets, and market integrity. The section covers the main use-cases, including references to specific projects and publications, such as: (i) use of aggregated data to identify emerging trends and risks either at EU, national or sectoral level and make such analysis public; (ii) use of granular data to investigate a specific event or entity's behaviour; (iii) sharing of data between authorities to support specific projects, based on bilateral agreements or existing regulatory provisions. While there is a continuous need for more and better data (in terms of availability, quality or granularity, etc), policy makers have to consider it from the perspective of simplifying and reducing the reporting burden in general, but also in the financial sector. One example in this sense is ESMA's work on a proof-of-concept (PoC) on how MiFIR transaction data could be used to perform the transparency and volume cap calculations. The successful outcome of the exercise allows ESMA to discontinue in 2025 the two separate data reporting flows supporting these calculations.

On the other hand, Section 4 focuses on data quality key developments. The section firstly highlights the main achievements on the tools and technology supporting the data quality work. The quality and availability of data which fuels more and diverse uses is supported by the ongoing technological improvements (either on ESMA's or regulators' side). In 2024, ESMA finalised the migration of all datasets to its recently implemented big data platform, allowing its experts to have access to cutting-edge tools and state-of-the-art capacity (in terms of speed and size) to perform data quality work and analytics. Further expanding the uses of the big data platform, 2024 marked another major milestone for the cooperation between ESMA and NCAs with the go-live of the ESMA Data Platform (EDP) - SHARE environment where users from 30 NCAs and the two other ESA have been onboarded and have access to pre-defined data analytics, regulatory data and codes to support their data monitoring or supervisory objectives. Another important tool facilitating the supervisory data quality work of ESMA and NCAs are the DQEFs. ESMA and NCAs have further improved and streamlined some of the existing DQEFs (e.g. by introducing the risk-based approach) and issued new DQEFs (MiFIR transaction and short-selling DQEFs).

Section 4 includes also details on the specific data quality developments of the datasets covered in the report. 2024 was especially marked by the *EMIR REFIT go-live* which brought a wide variety of changes to reporting with impact to both the reporting counterparties and the TRs. While immediately after the go-live the rejection rates (which show the level of

readiness of the counterparties' data submissions to comply to the new requirements) were high and upgrade rates (number of outstanding transactions that needed to be updated to the new format) were low, they showed significant improvements shortly after. Overall, ESMA has a positive assessment of the go-live, while noticing the different level of preparedness of reporting entities but also of TRs. In addition, the levels of *EMIR and SFTR DQIs* show slight improvements but remain well above the agreed thresholds, highlighting the need for further engagement with the relevant reporting entities and TRs to carry out the relevant corrective actions. With regards to *MiFIR transaction data*, while the PoC exercise (mentioned above) demonstrated a good level of data quality, ESMA and NCAs implemented a new dedicated risk-based approach DQEF to address the most critical data quality issues identified during the PoC. For *Funds*, in 2024 ESMA notably amended the existing DQEF to include the risk-based approach which has reduced the number of potential warnings identified. Despite this, the share of warnings actively addressed remains low, in line with the previous data quality cycles. Part of this is related to the fact that one NCA is still in the process of following up with the reporting managers and further improvements can be expected. Following this first run of the updated DQEF, ESMA and NCAs will continue to engage for reducing the unaddressed corrections and assess the need to further enhance the framework, including redefining the tests generating large number of false positives. On *Securitisation, ESEF* and *Short-Selling*, the data quality work is more recent than for the above-mentioned datasets. Despite that, due to technological support and experts experience, the impact of these first efforts is notable.

This edition of the report includes for the first time an overview on sanctions imposed by the NCAs on reporting obligations, as to show case another impactful tool that NCAs have as part of their supervisory and enforcement toolkit (Section 6).

The renewed political focus on the Capital Markets Union (CMU) — via the broader Savings and Investments Union (SIU) —, the rapid adoption of generative AI across financial markets, the push towards simplification and the burden reduction, and the resource-constrained environment are expected to shape ESMA's data work in the foreseeable future. This new paradigm will lead ESMA to update its Data Strategy 2023-2028 so as to ensure it remains best suited to deliver on all of its objectives, and continued access to usable data of sufficient quality by ESMA and its stakeholders will be key to achieving them. Main focus will be on the most efficient use of available data and resources. This includes leveraging technological innovations, such as generative AI, as well as exploring new ways to reuse existing data to reduce duplicative reporting and simplify the regulatory and supervisory reporting landscape, ultimately reducing the reporting burden to the industry.

2 Introduction

ESMA's report on the quality and use of data covers data reported under regulations falling under ESMA remit.

This is the fifth edition of the report and its scope has steadily expanding during the years and for this edition the report will cover: the data reported under European Market Infrastructure Regulation (EMIR) and the Securities Financing Transactions Regulation (SFTR), the transaction data reported under the Markets in Financial Instruments Regulation (MiFIR); transparency data published by approved publication arrangements (APAs) under MiFIR, data supporting the MiFIR transparency calculations, data reported under the Securitisation Regulation (SECR), data on funds collected under the Alternative Investment Fund Managers Directive (AIFMD) and the Money Market Funds Regulation (MMFR), and for the first time this year the data reported under the Short Selling Regulation (SSR) and information reported under the European Single Electronic Format (ESEF).

The report is organised in two main parts. The first part, Section 3, highlights how ESMA and its major stakeholders on the regulatory arena (NCAs, NCBs, the other ESAs, the European Commission – 'authorities') make use of the regulatory data under ESMA's remit for areas such as market and risk monitoring, sector specific assessments, as well as support for the data-driven supervisory and policy-making work. The section (and Annex 7.2) also includes references to publicly available documents.

The second part, Section 4, provides important insights on the work and outcomes related to monitoring, assessment and improving data quality. Firstly, the section highlights last year achievements in the technology, tools and cooperation that support the data quality work: ESMA's data sharing platform (SHARE), the enhanced cooperation with BaFin and the continuous development of DQEFs. Then, the section includes an overview of data quality developments of the datasets in scope of this year's edition, including the evolution of data quality indicators and relevant actions carried out in 2024. Special emphasis is put on the EMIR Refit go-live, which had an important impact on a large number of reporting counterparties and on TRs.

In addition, this edition of the report includes for the first time in Section 6, an overview on sanctions imposed by the NCAs on reporting obligations, as to show case another impactful tool that NCAs have as part of their supervisory and enforcement toolkit.

Moreover, to further facilitate market participants understanding of the data quality frameworks, this edition of the report includes a graphical annex comprising all the relevant data quality dimensions pertaining to each of the DQEFs.

3 Key projects with significant data use

Data reporting regimes play a critical role in the identification and monitoring of risks to the integrity, orderly functioning, and stability of financial markets.

Considering the high granularity of the reported data, the potential to leverage the data for various analytical uses cases is significant. This is reflected in the number of use-cases and in-depth analyses carried out by ESMA, NCAs, ECB and ESRB.

While one part of the analytical work remains confidential due to the sensitivity of the underlying information, users have issued numerous publications leveraging on data[1]. Thus, the wider public can obtain an insight into the variety of ways the data is used and the value it brings to the regulatory community.

The following sub-sections provide a high-level overview of the most significant analytical use cases implemented by NCAs, ECB, ESRB[2] (collectively "users", section 3.1) and ESMA (section 3.2) in their day-to-day work as well as in ad-hoc studies.

3.1 NCAs, ECB and ESRB

3.1.1 Monitoring of trends and risks in European financial markets

At macro level, financial data is used to monitor overall trends and key market-level developments.

NCAs use AIFMD, EMIR or MiFIR data as input to the national financial stability reports as well as sectorial updates.

Data is used also for ad-hoc analysis. For example, in 2024, AMF published a study on the "stock market drops" and their characteristics, consequences and possible causes of this phenomenon[3]. Also, ECB used EMIR data in their analysis of the impact of Brexit on the derivatives clearing landscape in euro[4].

3.1.2 Monitoring of exposures, infrastructures and participants

Financial data reporting enables users to monitor trading activity and market exposures at the level of industries, markets, specific firms (clearing members, clients) or type of investors (high frequency traders, neo-brokers, market makers, retail investors).

At counterparty level, data is used to perform audits, periodic assessments, or investigations of a sample of actors. Users establish automated fact sheets or interactive dashboards with risk indicators such as market risk, counterparty risk, liquidity risks or concentration, related to NCA-supervised entities and institutions with systemic relevance in the EU (ECB perspective). Some NCAs have established systems to monitor trading venues' activities or to rank investment firms based on their risk profiles (using EMIR, SFTR and MiFIR data) as well as funds with substantial leverage (using AIFMD data).

[1] Annex 6.3 provides a list of publications leveraging data published by NCAs, ESMA, ECB and ESRB that ESMA is aware of.
[2] The use-cases presented in this section have been compiled based on an ESMA survey sent to its Data Standing Committee members and ECB/ESRB. Responses were received from: FMA (AT), BAFIN (DE), DFSA (DK), CNMV (ES), AMF (FR), CBoI (IE), CONSOB (IT), LB (LT), MFSA (MT) and AFM (NL), as well as ECB and ESRB.
[3] "Stock market drops" (AMF, Nov 2024).
[4] "FISEA 2024 report: The derivatives clearing landscape in the euro area three years after Brexit" (ECB, 2024)

3.1.3 Detection and monitoring of market abuse

The purpose of the transaction data reported under Article 26 of MiFIR is to ensure that investment firms act in a manner that promotes market integrity. To this end, NCAs have developed a variety of automated tools and alerting systems to detect behaviours that could threaten the integrity of markets under their supervision, such as market manipulation or insider dealing.

The IT systems deployed by NCAs to that purpose are calibrated to detect the known manipulative conducts and provide alerts whenever a transaction is considered suspicious, in which case is followed up by the NCAs' market surveillance staff.

NCAs combine transaction data with other datasets, such as EMIR or short selling data, to identify possible cases of market abuse.

Given the sensitivity of the reported data and legal implications stemming from any behaviour that could constitute market abuse, the methodologies, tools, and results of analyses are generally not being made public by the authorities.

3.1.4 Market and risk monitoring for specific segments and asset classes

Data has been used by NCAs to assess the development of specific market segments, and, in some cases, to analyse retail investors' activities for consumer protection purposes.

Several NCAs use funds data standalone or combined with other datasets (e.g. EMIR and SFTR) to calculate metrics and risk indicators to support their regular monitoring process on key risks such as, leverage, synthetic leverage, margin call preparedness, and counterparty concentrations. Some NCAs make outcomes of their monitoring public, for example: the AMF's annual risk dashboards with aggregated information on funds, including liquidity stress tests, both on alternative investment funds and money market funds[5] and publications by CNMV of the annual Securities market report (with analysis using transaction reporting data)[6] or an overview of the derivative contracts and their contribution on the systemic risk (using EMIR notional position data to elaborate risk indicators both on-exchange and OTC)[7].

NCAs use also data to inform international bodies on specific matter. For example, AIFMD data is shared with IOSCO[8] as national contribution to the "Investment Funds Statistic Report"[9] which is published on a yearly basis.

ESRB publishes each year a report monitoring systemic risks and vulnerabilities associated with investment funds[10], based on AIFMD, EMIR, SFTR and MMFR data. Also, in 2024, the ESRB analysed risks in leveraged funds by merging AIFMD, EMIR and SFTR data[11].

SFTR data use-cases include the monitoring of repo market liquidity and the analysis of trading volumes around dividend dates.

MiFIR data is used by at least one NCA to monitor equity and bond market trends and to analyse different consumer protection topics (analysing retail client trading behaviour, identifying retail client risks,

[5] For example, "French Money market Trends" (AMF, Oct 2024)
[6] "Securities markets Annual Report 2023" (CNMV, 2024)
[7] "Derivative contracts in Spain and their contribution to systemic risk: Risk indicators based on the EMIR database" (CNMV, Nov 2024)
[8] International Organization of Securities Commissions
[9] "Investment Funds Statistics Report" (IOSCO, Jan 2024)
[10] "EU Non-bank Financial Intermediation Risk Monitor 2024" (ESRB, Jun 2024)
[11] Macroprudential bulletin articles: "Leveraged investment funds: A framework for assessing risks and designing policies" and "Measuring synthetic leverage in interest rate swaps" (ESRB, Jan 2025)

interconnectedness of financial intermediates).

Data is used also for ad-hoc analysis on specific markets or asset-classes. For example, in 2024, following the identification of a rise of trading in exchange-traded-funds (ETFs), AMF ran an in-depth analysis of this trend and the concerned investors profile[12]. CSSF published also in 2024 their first report on derivatives market, focusing also on their ongoing efforts to improve the quality of data[13]. CNMV also published an analysis of the evolution of trading fragmentation in Spanish equities between 2018 and mid-2024, exploring also the price formation process across different trading venues and their liquidity conditions, where public market data from TVs and APAs is used[14].

3.1.5 Monitoring of legal obligations

Among others, data is used to supervise specific legal provisions and to support risk-based and data-driven supervision (e.g. clearing obligation, clearing thresholds, risk mitigation techniques, exemptions from clearing and reporting under EMIR; best execution under MiFIR; funds and managers compliance with AIFMD and MMFR). For example, EMIR data has helped supervisors to verify if the information in prospectuses on derivatives is correct. Also, AIFMD data is used to monitor the leverage of AIFs that employ leverage on a substantial basis[15].

NCAs use data to calculate indicators as a component of the supervised entities' risk assessments, which will determine the NCAs' annual supervisory plan. Data is then used to identify the need of and to support specific supervisory actions, such as reviews, investigations or inspections, as well as enforcement activities. For example, EMIR data is used for ad-hoc reviews or investigations on potential security price manipulation, insider trading, and excessive risk taking of financial institutions.

NCAs also rely on data to inform their decisions with respect to upcoming EU policy changes. For example, with the review of MiFIR and MiFID II and in particular the introduction of the consolidated tapes provides (CTPs), AMF published a study on a methodology for calibrating the threshold for publication deferrals of non-equity instruments through an approach based on an analysis on transaction data[16].

3.2 ESMA

Data reported under the different regulatory regimes supports a wide spectrum of ESMA's mandates. It is used for markets monitoring, macro-level research, policymaking, supervision, and supervisory convergence. ESMA makes regularly available various publications and projects that provide context as to the extent of usage of the underlying data. The following sub-sections provide examples of such publications and projects.

3.2.1 Reporting simplification and burden reduction

ESMA is adhering to and strongly supporting the European Commission's objective to simplify and reduce the reporting burden in the financial sector.

This work is supported mainly by on-going and future policy work involving new or review of existing reporting obligations, having as main driver the simplification of reporting and avoiding, as much as possible, reporting duplication. When taking any simplification decision, the right balance needs to be struck as to ensure the reporting

[12] "Retail investor ETF activity" (AMF, Nov 2024)
[13] "Luxembourg Derivatives Market", (CSSF-CAA, Mar 2024)
[14] "Fragmentation, price formation and liquidity of Spanish equities in a European context" (CNVM, Dec 2024)
[15] As per the requirements defined in Article 25 of AIFMD and the ESMA Guidelines on the application of Article 25.
[16] "Bond transparency: How to calibrate publication deferrals?" (AMF, Jul 2024)

remains meaningful and can achieve fully its objectives.

Such simplification and reporting burden reduction policy decisions can be also supported through analysis of the regulatory reporting already in force and by demonstrating that the same objectives can be achieved using less data. An example of such work is the proof of concept (PoC) exercise ran by ESMA last year on how the transparency calculations can be done using data reported to NCAs and ESMA under Article 26 of MiFIR (transaction data) (see details on this work and its outcomes in Section 3.2.2).

ESMA will continue to engage with its wide range of stakeholders to actively identify areas where further simplification and burden reduction could be achieved, in order to contribute to a more effective and attractive EU capital market.

3.2.2 Use of transaction data to perform Transparency and Volume Cap calculations

During 2024, ESMA has developed a PoC to test the possibility of using MiFIR Article 26 transaction data to perform Transparency and Volume Cap calculations. At the end of this exercise, ESMA succeeded to closely replicate all key policy indicators used in the context of the two regimes and subsequently ESMA's BoS endorsed the proposal.

The decision to use existing dataset to support multiple use-cases is important because it enables shutting down two existing systems and thus reducing the burden for reporting firms.

Table 1 below shows results of the PoC for Transparency calculations on equity instruments. With the exception of LIS, ESMA was able to replicate results using transaction data with +95% accuracy (with the exception of LIS[17]).

Table 1

Transparency calculation results

Policy indicator	Matching ratio* 2022	Matching ratio* 2023	Statistical indicator
Liquidity status	**97.5%**	**98.1%**	Traded on a regulated market, market capitalisation (ADT, ADNTE)
Tick-size	**96.3%**	**97.2%**	Average daily number of transaction on the most relevant market in terms of liquidity (ADNTE on the MRMTL)
SMS, standard market size	**95.1%**	**95.1%**	Average value of transaction (AVT)
MRMTL	**94.1%**	**95.5%**	Most relevant market in terms of liquidity (MRMTL)
LIS, large in scale threshold	70.1%	**70.5%**	Average daily turnover (volume) (ADT)

For the Volume Cap calculations, ESMA was able to replicate the results using transaction data with +99% accuracy for all instruments and +90% accuracy when looking only at the suspended instruments. The accuracy of suspension status is the most critical aspect of volume cap calculations. Through several iterations of applying and improving the calculation methodology, ESMA has increased the matching percentage of suspended instruments from 15% to 90% (Table 2). The remaining discrepancies are primarily due to data quality issues, for which ESMA is engaging with the relevant NCAs (through a newly established DQEF) to address those.

[17] While ESMA is satisfied with the overall results of the PoC, improvements are still needed especially for the LIS threshold calculation. ESMA improves the results in an iterative fashion by identifying sources of discrepancies and implementing improvements and fixes. As part of implementation of the production solution ESMA will close the remaining gaps in the methodology.

Table 2

Volume cap calculation results

Matching indicator in:	September	October	November
All instruments	80%	97%	99%
Focus on suspended instruments only	15%	49%	90%

Following the success of the PoC, ESMA will be able to discontinue the specific reporting flows needed for the transparency and volume cap calculations purposes and to decommission its internal systems for processing this information (FITRS and DVCAP). The work will continue in 2025 with the launch of a project to implement the PoC into a production system. As part of the project, further work will be done on improvement of calculation methodologies and achieve as high alignment with the existing systems as possible.

ESMA will issue dedicated communication to market participants with detailed plans on the decommissioning of the legacy systems and any other practical aspects to help market participants with the related changes.

3.2.3 Trends, Risk and Vulnerabilities report (TRV)

The TRV[18] is ESMA's flagship report monitoring market-level risks to consumers, market integrity and financial stability. It provides a comprehensive overview of key trends and risks in Europe. EMIR, MiFIR (FITRS and weekly positions[19]), CRA Regulation (RADAR), AIFMD and SFTR are among key regulatory data sources used to perform analysis of financial and securities financing markets. The report is published semi-annually.

3.2.4 Market reports

Besides the TRV, ESMA regularly[20] publishes market reports with extensive and granular statistical breakdowns and analyses.

In 2024, ESMA published market reports for the first time on EU carbon markets, crowdfunding in the EU and EU securities financing transactions market.

The first annual EU carbon markets report[21] leveraged regulatory data to analyse trading in EU emission allowances. This included i) data reported to BaFin under the Auctioning Regulation; ii) MiFIR transactions data available to ESMA; iii) EMIR transactions data available to ESMA; and iv) daily positions data on derivatives reported to NCAs under MiFID II. The report highlighted the central role of derivatives market in the functioning of the EU Emissions Trading System, in support of the EU climate policy objectives, and made several recommendations to improve the identification of EU ETS participants and the reporting of certain types of transactions.

The first annual ESMA market report on crowdfunding[22] presents aggregate statistics for the EU crowdfunding market. The report covers information on all providers in the scope of the European Crowdfunding Providers for Business Regulation (ECSPR)[23], which came into effect in 2021. These crowdfunding providers report data to NCAs, who then report anonymised aggregate statistics to ESMA, which also maintains a public register of authorised providers. The data used in the market report cover a sample of 98 crowdfunding service

[18] TRV 2024 No1 with Annexes, TRV 2024 No2 with Annexes (ESMA, 2024)
[19] Public data on positions held in commodity derivatives and emission allowances derivatives, available in ESMA Register
[20] Annual or every two years publications.
[21] "EU carbon markets" (ESMA, 2024)
[22] "Market Report on Crowdfunding in the EU" (ESMA, 2024)
[23] Regulation (EU) 2020/1503 on European crowdfunding service providers for business

providers in 17 EU Member States. For future editions of the report, ESMA and NCAs will work to expand the data coverage and build a yearly time series, enabling analysis of market trends and developments.

The ESMA market report on EU securities financing transactions markets[24] provides first comprehensive market-level overview of the EU repo market, based on information reported by market participants under the Securities Financing Transactions Regulation (SFTR). The report covers the repo markets from the beginning of the SFTR data collection in January 2021, up to October 2023. It is part of ESMA's monitoring framework on securities financing transactions, including market development and key risk metrics.

In addition, ESMA published last year a new annual edition of the market report on EU prospectuses (2nd annual edition)[25].

ESMA is also publishing market reports on a two-year basis, that were not in scope of publication last year. This is the case for the alternative investment funds market report (based on AIFMD data), EU Money Market Funds market report (based on MMFR data), the market report on securities markets (based on MiFIR transparency data (FITRS) and reference data (FIRDS)), the CRA Market report (based on CRAR data reported to ESMA via RADAR framework), EU derivatives markets (based on EMIR data).

All market reports[26] published by ESMA can be found on the ESMA website, under the Risk monitoring page[27].

3.2.5 Publication of statistics and dashboards

Ensuring that public data and information on securities markets is not only available but also easily accessible and usable by all its stakeholders is paramount for ESMA. This is evidenced by Objective B of its Data Strategy 2023-2028[28] to "*contribute to providing relevant, useful and understandable information to the market in machine-readable form, and facilitate its use, including by retail investors*".

In 2024, two initiatives could be mentioned: the publication of a set of statistics and the release of an interactive dashboard on MiFID data.

The Statistics on Securities and Markets (ESSM report)[29] provides details about how securities markets in the European Economic Area (EEA30) are organised, including indicators on market participants and infrastructures. The ESSM report focuses exclusively on data available to ESMA through regulatory frameworks such as MiFID and MiFIR, Prospectus Regulation, EMIR, MMFR, AIFMD and other regulations establishing the creation of public registers by ESMA. The statistics cover the distribution of the different types of entities by member states, either based on their supervisory role or their location. They also contain information on third country entities when their activities are recognised (e.g., CCPs or benchmark administrators) or when their securities are traded in the EEA30 (e.g., information on issuers and securities available for trading).

The interactive MiFID data dashboard[30] published by ESMA last year is based on the

[24] "EU securities financing transactions markets" (ESMA, 2024)
[25] "EU Prospectuses" (ESMA, 2024)
[26] In addition to the reports mentioned in this section which are mainly produced using regulatory data, ESMA also publishes on a yearly basis a "Costs and Performance of EU Retail Investment Products (UCITS, AIFs and SRPs)" report based mainly on commercial data.
[27] ESMA website: Risk monitoring page.
[28] ESMA50-157-3404_ESMA_Data_Strategy_2023-2028
[29] "Statistics on Securities and Markets" (ESMA, May 2024)
[30] MiFID dashboard 2023

MiFID data available in the public ESMA registers[31]. Although the underlying data is entirely public, its added value lies in the pre-computed figures presented through visually appealing charts and intuitive filtering and navigation, making it accessible and easy to understand for virtually anyone.

Going forward, ESMA intends to continue developing and publishing such dashboards covering additional datasets. It may also consider other ways to enable access to data by the public, such as the publication of synthetic data derived from supervisory data or by making available codes that help query, retrieve and format data published on ESMA registers.

3.2.6 Sharing data and analysis with other regulatory bodies

As a central data-hub for the financial markets sector, ESMA is also responding to regular or ad-hoc data or analysis requests from the other regulatory bodies such as the other ESAs, the European Commission, ECB/ESRB or NCAs. For example, ESMA is transmitting at a quarterly frequency AIFMD data to ESRB.

In 2024, ESMA provided analytical support to the EBA for their Report under Art 21c(6) CRDVI. ESMA, using data from AIFMD and MMFR reporting, provided information on the banking services offered to EU funds from third countries credit institutions.

ESMA has also assisted the European Commission in its project on promote European economic security, by providing necessary analysis.

In addition, ESMA is also providing data on ad-hoc basis to EBA to support their ECAI[32] mapping exercise.

ESMA also provides the European Environmental Agency (EEA) with data on bonds used to finance activities that address climate change and environmental issues. The data feeds the green bonds indicator of the EEA which has been used in the European Union 8th Environment Action Programme report and on EEA's online dashboard on Green Bonds in Europe.

3.2.7 CCP monitoring and stress testing

ESMA has a mandate in the monitoring of the non-systemically important third-country CCPs (Tier 1 CCP) and a supervisory mandate over the systemically important third-country CCPs (Tier 2 CCP).

ESMA produces on a yearly basis an annual review of Tier 1 CCPs' activities and services provided to clearing members or trading venues established in the Union, as well as the regulatory and supervisory developments in third countries for which an equivalence decision has been adopted by the European Commission.

This review is based on the data submitted by Tier 1 CCPs in response to a request for information. The review focuses on the exposures of European clearing members as a rough proxy of potential risks for the European financial markets posed by Tier 1 CCPs and highlights the relevance of certain Tier 1 CCPs on certain activities and markets.

In addition, in 2024 ESMA published its 5th CCP stress test report assessing the resilience of EU and Tier 2 CCPs under adverse market conditions[33]. Besides the core credit, concentration and liquidity risks, the exercise included for the first time a new climate risk component and an enhanced clearing ecosystem analysis. The stress test is primarily based on data specifically

[31] https://registers.esma.europa.eu/publication/
[32] External Credit Assessment Institutions
[33] ESMA 5th CCP Stress Test Report

reported by CCPs for this purpose. The latest exercise was complemented by an analysis looking into large clients of multiple clearing members and CCPs based on derivative exposures reported under the EMIR reporting obligation, contributing to the further understanding of client concentrations in the central clearing ecosystem of the EU.

3.2.8 Direct supervision

ESMA analyses the data it collects from TRs, SRs, ARMs, APAs or CRAs (and to a lesser extent benchmarks administrators and systemically important third-country CCPs (Tier 2 CCPs) due to their specificities) to identify data quality issues with the ultimate objective to increase usability of these datasets and eventually the ability of EU regulators, supervisory bodies and other entitled users to fulfil their responsibilities. When ESMA identifies data quality issues, it follows up with the relevant supervised entities and/or with the NCA of the concerned reporting entities to ensure remediation and that root causes are effectively addressed. ESMA also routinely analyses the incident data collected from these entities to identify and address issues in the availability, confidentiality and integrity of the data. Some particular cases and developments on how data and related technologies and tools are used to support the direct supervision activity are provided below.

3.2.8.1 Supervision of Tier 2 CCPs

ESMA makes use of EMIR data in the supervision of Tier 2 CCPs to identify and monitor relevant risks, analyse market developments, and produce supervisory insights. In 2024, ESMA utilised EMIR data to assess the level of derivatives exposures and clearing volumes at Tier 2 CCPs, monitor developments in client clearing, and conduct targeted deep dives into relevant markets such as interest rate derivatives, EU emission allowances derivatives, and commodities. Another use of the data has been for benchmarking supervisory data, helping to identify outliers or incorrect entries.

3.2.8.2 Supervision of CRAs

In its capacity as supervisor of CRAs, ESMA developed a range of internal monitoring analyses to support its strategic objectives. In 2024, ESMA took further steps to enhance its analytical toolkit for RADAR-reported information, i.e. by deploying its first machine-learning analytics for multi-rated ISINs, and by significantly improving the metrics used to detect rating shopping practices. Quantitative information on ratings issued or endorsed in the EU is regularly used to define the scope and coverage of supervisory activities, detect potentially concerning patterns, feed the risk assessment process, and inform various stakeholders on the evolution of the ratings' market. ESMA also publishes annually the CRA Market Share Report[34], including information about CRAs' rating coverage in the EU by asset class.

3.2.8.3 Supervision of EU critical benchmarks

In its role as the supervisor of administrators of EU critical benchmarks and of third-country administrator recognized in the EU, ESMA frequently relies on evidence coming out of regulatory datasets. The main datasets being used for those workstreams is EMIR with the goal to observe outstanding derivative amounts and trade activity of specific benchmark(s). Beforehand the data is refined and scoped using the reference dataset of FIRDS which essentially provides

[34] "CRA Market Share Calculation" (ESMA,2024)

a set of identifiers (mostly ISINs) that can be used to filter out relevant instruments.

ESMA is currently conducting a project to create a comprehensive process that will formalize and enhance and automatize its assessment of benchmarks within the EU. This strategic project aligns with ESMA's goal to foster efficiency, transparency, and systematic use of data, enabling more informed decision-, and policy-making based on empirical evidence. The project also aims at incorporating new technologies and datasets. This further ensures that information becomes more complete while fulfilling legal requirements that are outlined in the following paragraph.

For example, ESMA assesses at regular intervals whether benchmarks are deemed to be classified as critical benchmarks or significant due to their usage within the Union. The classification is defined by breaching certain volume thresholds which are in turn defined in Benchmark Regulation (BMR)[35]. Further regulatory data is used during the recognition process to establish the usage of third country benchmarks to be recognised within EU.

Moreover, as the supervisor of the EU critical benchmark Euribor, ESMA assesses Euribor's representativeness through data driven tools and analytics leveraging on its access to data related to Euribor contributions and money market transactions.

3.2.9 Data-driven policy

ESMA frequently relies on data while developing policy proposals or running specific stress tests.

3.2.9.1 Preparatory work for Securitisation Regulation revision

In the second quarter of 2024, in the context of the preparatory work for the revision of the Securitisation Regulation, ESMA received data queries from the European Commission (EC) regarding the securitisation market. The EC's objective was to develop a comprehensive overview of the securitisation market situation to support potential policy proposals, including data that would underpin the impact assessment on the revision of the securitisation framework. The scope of the information requested by the EC encompassed several key areas: (i) the volume of private versus public transactions over time; (ii) the volume of Simple, Transparent, and Standardised (STS) transactions versus non-STS transactions over time; (iii) the breakdown of investors by institutional type; (iv) the breakdown of originators by institutional type; and (v) the segmentation of the market by asset class (e.g., RMBS, CMBS, CLOs, auto loans, etc.). In response, ESMA provided the EC with securitisation data, including figures on the number of private and public STS securitisations notified to ESMA, as well as the evolution since 2021 of the aggregated current principal balance of public STS securitisations. Additionally, ESMA supplied data on the aggregated current principal balance of all public securitisations, including a breakdown by underlying asset type and by country of the originator. These data were subsequently used by the EC to support the targeted consultation on the revision of the Securitisation Regulation, which was launched in October 2024.

[35] See article 20 of Regulation (EU) 2016/1011 of the European Parliament and of the Council.

3.2.9.2 Active Accounts Requirements

In 2024, ESMA used supervisory and EMIR data to analyse exposures and clearing flows of EEA counterparties in the EUR- and PLN-denominated interest rate derivatives (IRD), and EUR-denominated short-term interest rate (STIR) markets in support of the consultation paper on the conditions of the Active Account Requirements. In particular, ESMA used these data to specify the representativeness criteria, including the classes of derivative contracts for certain counterparties that would ensure that they clear a minimum number of trades at an EU CCP which is representative of the derivative contracts cleared at the clearing services of substantial systemic importance.

3.2.9.3 Assessment of implementation of Guidelines on Article 25 of AIFMD

Using AIFMD data, ESMA assessed the risk posed by leveraged AIFs in the EU finding that the implementation of the ESMA Guidelines on Article 25 of AIFMD[36] is improving the monitoring of the EU AIF sector. At the national level, NCAs generally managed to overcome existing AIFMD data gaps by using additional data sources and other information from fund managers to have an accurate view of the risk in their jurisdiction[37]. In addition, in 2024, ESMA used AIFMD data to issue two advices[38] to NCAs that introduced leverage limits on a group of AIFMs under Article 25 of AIFMD.

3.2.9.4 Technical advice on Article 25a of MAR

ESMA has also leveraged data in the context of the new mechanism under Article 25a of MAR, which facilitates the exchange of order data to enhance the detection and enforcement of cross-border market abuse cases. In response to the EC's request for technical advice, ESMA conducted an analysis using data from FIRDS and FITRS to identify trading venues with a significant cross-border dimension. This assessment, covering data from 2021 to 2024, supports the proportional implementation of the mechanism by determining which trading venues meet the relevant thresholds to be considered in scope of the exchange mechanism.

3.2.9.5 MiFIR Review

The MiFIR review entered into force on 28 March 2024. The amendments introduced to Level 1 required ESMA to undertake a large-scale review of impacted Level 2 measures (technical standards), of which several were data-driven. ESMA notably relied on MiFIR transparency data (FITRS) and reference data (FIRDS) to develop the revised provisions on equity transparency[39], bonds transparency[40] and the CTP revenue redistribution scheme[41], all published in December 2024. Regarding bond transparency, those datasets were complemented by credit rating data reported under the CRA Regulation (through ESMA's RADAR system).

In the same context, ESMA has also initiated in 2024 the review of the transparency provisions for derivatives relying on FIRDS, FITRS and EMIR, which will be finalised in 2025.

3.2.9.6 EMIR Clearing Thresholds

EMIR TR data has been used for the calibration of the EMIR clearing thresholds. For background, please note that Regulation (EU) 2024/2987 (also known as 'EMIR 3')

[36] Guidelines on Article 25 of Directive 2011/61/EU
[37] "Assessing risk posed by leveraged AIFs in the EU" (ESMA, Jan 2024)
[38] ESMA advices under article 25 AIFMD: CBI measure (2022) and CSSF measure (2024).
[39] Final report on RTS1 review
[40] Final report on RTS2 review
[41] Final report on CTP-related RTSs

introduces a number of changes to the EMIR clearing thresholds regime, notably with respect to the calculation methodology of counterparties' positions which is no longer based on the Exchange-Traded-Derivatives (ETDs) versus OTC distinction (where ETDs are not included in the calculation while OTC derivatives are) but rather on the level of OTC uncleared transactions. Under the revised framework, to assess whether they are above the clearing thresholds and therefore subject to the clearing obligation and possibly other requirements, financial counterparties (FCs) and non-financial counterparties (NFCs) should calculate their uncleared positions and compare it with the uncleared clearing thresholds. In addition, EMIR 3 includes an additional requirement for FCs which should also calculate their aggregate position in cleared and uncleared OTC derivatives and compare it with the aggregate clearing thresholds.

EMIR 3 also empowers ESMA to develop an RTS to specify the value of the uncleared and, where necessary, aggregate clearing thresholds. In order to deliver on this policy mandate, ESMA has carried out a data analysis using as a main source EMIR data reported to Trade Repositories (TR) registered in the EU. In particular, ESMA assessed the population of FCs and NFCs (at group level) that are above the clearing threshold as well as the notional traded by those counterparties per each asset class. From that starting point, with the aim of ensuring a similar coverage of counterparties, ESMA presented simulations on how the population of counterparties above the clearing thresholds and the notional they trade would be impacted by the different levels of clearing thresholds for uncleared derivative positions, as per the new methodology.

The uncleared and aggregate thresholds proposed by ESMA in the draft RTS are presented in ESMA's Consultation Paper[42].

3.2.10 Data-driven supervisory convergence

ESMA follows a data driven approach to its supervisory convergence, using data to prioritise, scope and shape the initiatives it carries out. In addition, it uses convergence workstreams to reinforce attention on data and promote data quality enhancements.

3.2.10.1 Peer reviews

Among some of the initiatives undertaken in 2024, data in relation to the issuance of Simple Transparent and Standardised (STS) securitisation transactions across the EU were used by the relevant Peer Review Committee (PRC) to identify the focus and scope of the Peer Review on STS Securitisation launched in early 2024[43]. Similarly, data on the size of the investment management market and level of depositary activity were used across the peer review on Depositary Obligations launched in Q2 2024 which will conclude in 2025.

3.2.10.2 Voluntary Colleges

ESMA manages Voluntary Supervisory Colleges (VSCs) on some large investment services / investment management firms in the EU. Throughout these colleges, the relevant NCAs exchange data and intelligence on their supervisory activities. Some of these colleges discussed in detail NCAs' respective findings and possible inconsistencies observed in firms' data reporting and their quality allowing to dig further in this topic and address relevant observations to the firms as needed. ESMA also decided to launch a new VSC on a large firm based on the analysis of data on the

[42] Consultation Paper on the Draft technical standards to further detail the new EMIR clearing thresholds regime

[43] ESMA42-2004696504-7945 Peer Review on the implementation of the STS

volume of reception, transmission and execution of orders in the EU and EU investment managers' assets under management.

3.2.10.3 Investment firms' cross-border services

In 2024 ESMA has also coordinated a collection of information and data on investment firms' cross-border provision of services across NCAs in order to get a better picture and support supervision on this type of activity.

3.2.10.4 MMF stress testing

ESMA uses the results of the stress tests scenarios of MMFs, as defined in the ESMA Guidelines on MMF stress test scenarios[44], sent by managers of MMFs to NCAs, and then to ESMA, to identify any potential vulnerabilities of MMFs.

3.2.10.5 Risk-based supervision principles

ESMA also developed principles on risk-based supervision. These principles serve to set a basis for ESMA and NCAs in conducting effective supervision based on the adequate identification, analysis and prioritisation of risks. The essential role of (high quality) data to carry out effective supervision is a key element of this work. It is indeed recognised that data are key to identify and assess patterns in financial markets, understand and address the root cause of issues observed, to test risk hypothesis and intervene early. Through this exercise, ESMA supports effective use of data by supervisors in their ongoing work.

[44] ESMA Guidelines on stress test scenarios under MMF Regulation (2024)

4 Key data quality developments

This section provides important insights on the work and outcomes related to monitoring, assessment and improving data quality.

The section focuses on in the first part on ESMA's achievements in the technology, tools and cooperation with the NCAs that support the data quality work. Then, the section includes an overview of data quality developments of the datasets in scope of this year's edition.

The indicators provided through the second part of the section reflect the DQIs calculated by ESMA (available also to NCAs on the ESMA Data Platform – EDP). At the same time, NCAs have also developed their own tools (advanced dashboards, alerting systems, etc) to monitor compliance with the various reporting requirements. In case of EMIR for example, this can take the form of data quality dashboards to monitor reporting flows, internal tool to calculate positions with EMIR trade activity reports and compare it with EMIR trade state reports, data quality controls (outliers, rejection, reconciliation, completeness, content of fields and flags), reconciliation between reported data and internal data (see also Section 4.4.2 on EMIR DQIs). In particular in 2024, some NCAs used EMIR data to identify counterparties which were going to be most affected by EMIR REFIT implementation and to check their preparedness for the go-live of the new reporting requirements (see also Section 4.4.1 on EMIR REFIT go-live). One NCA also extracted and used ESEF data to carry out internal assessments on compliance with the ESEF reporting requirements laid down in the technical standards document or ESMA ESEF Reporting manual (see also Section 4.9 on ESEF data).

4.1 Project SHARE – sharing information and cooperation with NCAs

In 2022, ESMA inaugurated its Data Platform (EDP), a big data and cloud-based solution enabling more performant and more efficient data computation. The first use case was the supervision of Data Reporting Service Providers (DRSPs), a new supervisory mandate for ESMA.

Since then, ESMA has continued to moving all its datasets and the relevant analyses and tools to the platform.

In the course of 2024, ESMA opened the access to the EDP to the 30 EEA NCAs and the two ESA. There were two main pillars of cooperation – data analytics and code sharing.

Firstly, EMIR, SFTR and EMIR Refit data quality indicators, analytics dashboards and relevant granular underlying data are shared with more than 250 users across ESMA and NCAs. This basically allows ESMA and NCAs to execute the Data Quality Engagement Frameworks via the Data Platform, as a collaborative tool.

Furthermore, the successful launch of the code-sharing initiative via the EDP, which also uses DevOps as a code sharing tool, has created a centralised space where NCAs and ESMA can access, share, and collaborate on SupTech projects. Since its implementation, 12 projects (7 from ESMA

and 5 from NCAs) are now available for collaboration. These projects address key supervisory challenges, including market abuse detection, ESG text mining, automatic generation feedback emails on data quality overview and issues, short selling data quality checks and prospectus scrutiny.

4.2 Enhanced cooperation with BaFin

In the context of ESMA's work on quality and use of data and the importance of reporting errors by German entities under major EU reporting frameworks, ESMA and BaFin staff set up an enhanced periodic engagement during which the relevant issues were discussed, impact was assessed, and resolution was prioritised.

BaFin also stepped up in their approach and increased the targeted efforts in the relevant reporting areas. As it can be evidenced in the next subsections, this brought several important benefits for the quality of the data, and it further improved its usability across datasets.

This engagement proves very impactful and given the positive experience, ESMA staff is open to repeat it in the future.

4.3 Data quality engagement frameworks

Regulatory data is used by ESMA and NCAs on ongoing basis to support multiple policy, convergence, supervisory and analytical purposes. ESMA uses the data as part of its direct supervisory activity as well as when performing various ad-hoc or ongoing market and risks analysis or when performing regulatory calculations (as also detailed in Section 3.2 ESMA). When performing such activities ESMA and NCAs may identify data quality issues which could be attributed to the data service provider directly supervised by ESMA (as is the case for TRs, securitisation repositories, APAs or ARMs) or to the counterparties submitting the data and supervised by NCAs. ESMA and NCAs identified therefore the need to formalise exchanges between themselves and have a consistent and comprehensive approach when looking at data quality across all NCAs and, at principles level, across all regimes.

For each regime, the relevant experts from ESMA and NCAs, defined together and agreed on the establishment of frameworks (Data Quality Engagement Frameworks, or DQEFs) and their content. In general, the DQEFs are composed of two documents: a "non-technical" document which specifies how the framework functions, e.g. the roles and responsibilities between ESMA and NCAs, the timelines and means for the exchange of information; and a "technical" document which details the format and minimum content of the statistics (i.e. data quality indicators or DQIs) to be shared by ESMA and the criteria to decide which reporting entities should be addressed.

The frameworks have been defined at different times for each regime, depending on the criticality and the maturity of each of them. They are also subject to reviews, either to reflect new regulatory changes, or improve the framework based on experience, or to align to changes in the overall data quality process principles applied by ESMA and agreed with NCAs (for example inclusion of the risk-based approach, on all existing DQEFs).

In 2025, the DQEFs have been also made publicly available[45] on ESMA's website. The published DQEFs are also accompanied by a matrix which indicate the main data quality dimensions that are addressed in each of the

[45] Available on ESMA's website.

frameworks, though the included DQIs (included also in Annex 7.1).

4.4 EMIR and SFTR data

4.4.1 Go-live of the revised technical standards under EMIR REFIT

The EMIR REFIT (EMIR Regulatory Fitness Program) is a large-scale regulatory update to the European Market Infrastructure Regulation (EMIR) derivative transaction reporting rules, that went live on 29 April 2024. It brought a wide variety of changes to reporting. Most significant the review included changes to the reportable fields to streamline the reporting and ensure global alignment on derivatives reporting. Additionally, the reporting of post trade risk reduction operations has been fundamentally changed to reflect those transactions with greater detail. Also, the reporting format has been unified across the whole reporting chain with the introduction of a mandatory compliance with the ISO 20022 XML format end to end, meaning that also reporting entities need to transfer their information in the XML format. Considering these fundamental changes, based on past experiences and feedback from market participants, ESMA established 18-months' preparation period for reporting entities and TRs. To further support the industry, ESMA issued clarifications of reporting requirements via Guidelines, validation rules, detailed XML schemas, as well as Q&As.

Overall and considering the above-mentioned aspects, ESMA has a positive assessment on the go-live, with a wide majority of reporting counterparties being ready to report under the new standard. At the same time, ESMA and authorities supervising the reporting entities noted the different level of preparedness of reporting entities but also TRs.

More specifically on TRs preparedness, ESMA and authorities observed that some key functionalities had been delivered after the go-live. Comparing among TRs it was noted that some TRs deployed the necessary fixes earlier than others. The key functionalities in question involved mainly portability, LEI updates in case of mergers and acquisitions (EMIR Q&A40), inter-TR reconciliation and the delivery of the reports to the authorities. Regarding the issues affecting the last-mentioned functionality, they were mainly concentrated in one TR.

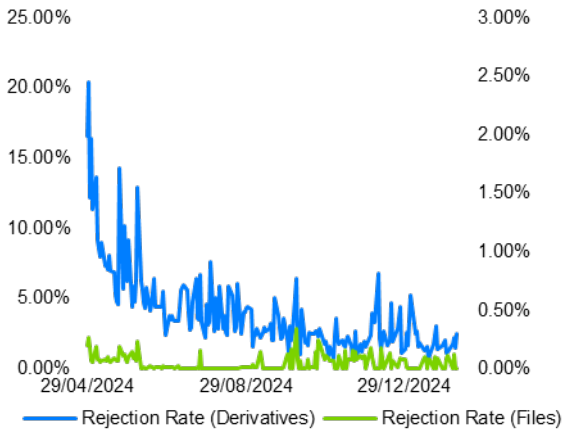
4.4.1.1 Rejection rates after REFIT go-live

As previously outlined EMIR REFIT is a major overhaul reporting as it relies on an ISO 20022 compliant XML format for the submissions of regulatory data. This requirement means on technical level that the reported data needs to be compliant with XML schema, or more simply put technical reporting rules such as the population of mandatory fields. TRs are enforcing the schema compliance when receiving the data and reject the submitted information when they are not compliant. Monitoring the percentage of trade reports rejected due to errors, the so-called rejection rate, is critical for authorities to ensure that the data received is accurate and complete. ESMA monitors rejection rates using two dimensions. The first dimension is calculated at the file level. It quantifies if the files send by entities are malformed and get initially rejected by the TRs without further processing. On the go-live this rate stood at 0.23% but improved significantly to 0.06% shortly afterwards. As of February 2025, the file rejection rate stands at 0.0047%. The second dimension focuses on the derivatives/records level. This dimension measures how many records have been rejected due to errors over the total submitted derivatives within the XML file. In line with previous dimensions (visible in the Chart 1 below) the rate started relatively

high at the go-live (at 20%) and has steadily decreased to a figure between 1% and 2.5%. While being variable across time, also due to specific issues at one TR[46], the rejection rate is demonstrating a substantial improvement as visible in Chart 1 to date. Although the rejection rates have dropped over the course of the year 2024, it remains slightly elevated to the average rate before the EMIR REFIT go-live where it stood at 1.4%. ESMA and NCAs want to highlight that the supervisory expectation of the rejection rate at EEA30 level and in consequence at entity level should be close or equal to zero percent.

Chart 1

Rejection rate after the REFIT go-live



Note: This chart show the rejection rates at file (rhs) an derivatives (lhs) level.
Sources: EMIR REFIT Rejection Reports and ESMA calculations.

4.4.1.2 Updating legacy derivatives after REFIT go-live

Another key aspect of transitioning to the EMIR REFIT standard involved the resubmission of outstanding derivatives in the new reporting format required by the revised REFIT schema. For this crucial step reporting entities were granted by ESMA an additional 180-day transition period starting from the EMIR REFIT go-live, i.e. till October 2024, to ensure compliance of their so called "legacy derivatives"[47].

This step was particularly demanding because EMIR REFIT rules specified new mandatory fields for which reporting entities needed to report the additional information. On the day of the REFIT go-live 12 million derivatives transactions or approximately 36% of the trade state dataset were falling under this requirement.

Throughout the transition period, ESMA followed in close cooperation with the NCAs the upgrade process. For doing that ESMA and NCAs have implemented a comprehensive method considering TSR and TAR data to assess the level of compliance of derivatives with REFIT requirements. Using this method ESMA observed that the upgrade activity was high during the go-live, slowed down during the summer and picked up shortly before the regulatory deadline. As of February 2025, only 2% of the derivatives subject to upgrade requirement have not been upgraded. The Chart 2 shows the upgrade rate per country starting with the jurisdiction with the highest amount of derivatives subject to upgrade requirement on the EMIR REFIT go-live (FR). In this context the upgrade rate is the number of upgraded derivatives over all records subject to the upgrade requirement. In line with the risk-based approach of ESMA the chart shows that upgrade rate of the largest jurisdictions is above average.

ESMA and the NCAs acknowledge the progress being made to upgrade the derivatives to the new requirements. For resolving the remaining outstanding trades non-compliant with the upgrading requirements NCAs and TRs are in close contact with concerned entities. In this

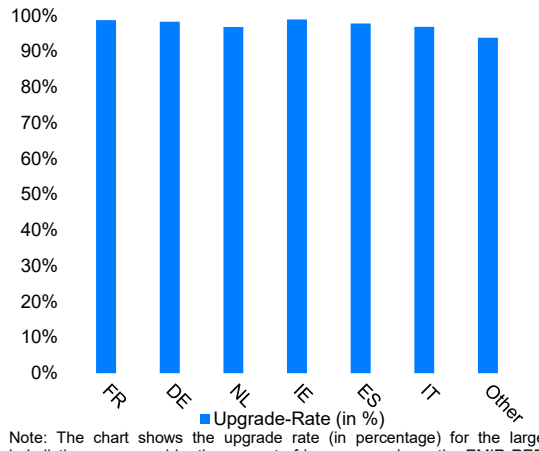
[46] Due to important upgrade in its own systems, the entity experienced several issues post go-live which had negative effect on the timeliness and availability of the data to market participants and authorities. The issues were gradually solved.

[47] Legacy derivatives in this context are open derivatives with maturities exceeding the transition period of 180 days from the EMIR REFIT go-live.

context, it should be noted that a large amount of the non-upgraded derivatives are cross-border derivatives that are not easily enforceable if several NCAs and market participants are involved. Especially considering that the deadline to upgrade legacy trades was in October 2024, reporting entities with legacy records should follow up closely on their end with the TRs to ensure the swift upgrading.

Chart 2

Upgrade rate per country



Note: The chart shows the upgrade rate (in percentage) for the largest jurisdictions measured by the amount of legacy records on the EMIR REFIT go-live date. A higher upgrade rate indicates a greater proportion of updated records. The bars are arranged in descending order by the amount of legacy records.
Sources: EMIR REFIT Trade State/Activity Reports and ESMA calculations.

4.4.2 EMIR REFIT Data Quality Indicators

In line with the agreed DQEF between ESMA and the NCAs, at the end of 2024, ESMA has produced and shared with the relevant authorities granular information (e.g. entity information) on the data quality indicators (DQIs) that exceeded the established threshold and were asked to undertake supervisory activities. The scope of the exercise was the data reported since the REFIT go-live (end of April 2024) until the end of the year. Seventeen DQIs were disseminated (as compared to eleven last year) which have been also updated to reflect changes due to the go-live of EMIR REFIT. In March 2025 NCAs provided feedback to ESMA on the resolution of the identified issues following their outreach to the relevant entities under their jurisdiction. Following NCAs feedback, ESMA will assess the improvement in the DQI results[48].

In this report edition, an update is provided for the same five DQIs[49] disseminated in the previous 2023 report. While this edition focuses on the period after REFIT (i.e. May to December 2024) you can revert to last year report[50] to have an overview of the evolution of each DQI over a longer timeframe.

EMIR REFIT DQI 1a quantifies discrepancies in the number of reported outstanding derivatives at the trade level between two counterparties engaged in trading. Such discrepancies pose challenges to authorities in obtaining an accurate understanding of entities' relevant exposures since the information contradicts within the EMIR data. Chart 3 illustrates the evolution of EEA30-level results. Discrepancies displayed a trend of gradual decrease from 33.91% in 31-May- 2024, with the latest recorded percentage at 20.5% as of 31-Dec-2024, indicating positive developments in resolving this mismatch at counterparty level reported information.

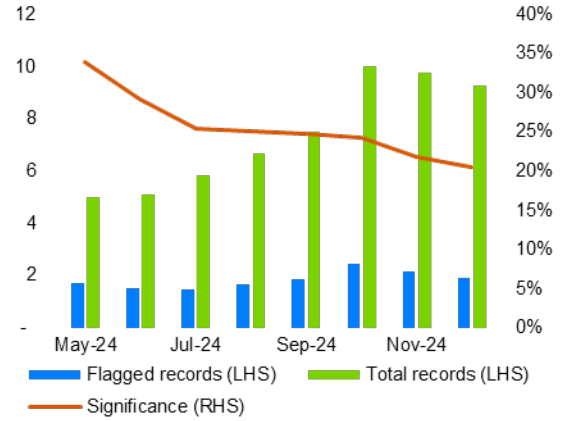
[48] Due to the short time between the feedback receipt and publication of this report, the conclusions on the exercise were not included in this report.

[49] The EMIR DQIs charts provide an overview as of February 2025 and therefore might not include corrections made after the snapshot for the report was taken.

[50] 2023 Report on quality and use of data (ESMA, April 2024)

Chart 3

EMIR REFIT DQI 1a - Number of Outstanding Trades

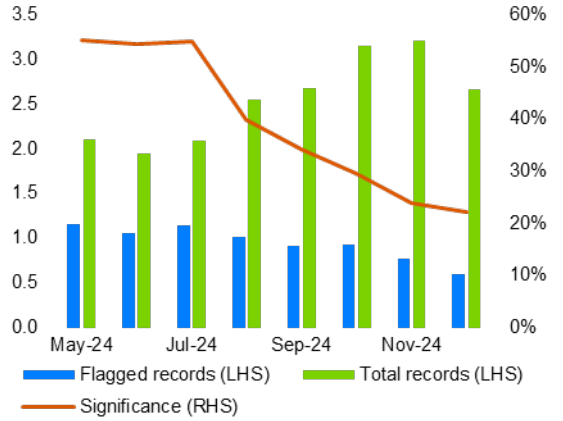


Note: LHS axis (millions of records): "*Flagged records*" refers to the number of outstanding derivatives at trade level for which there is no reporting from both sides, where both sides are obliged to report. "*Total records*" refers to the number of outstanding derivatives at trade level where both sides are obliged to report.
RHS axis (%): "*Significance*" refers to the percentage of "*Flagged records*" over the "*Total records*".

Sources: EMIR REFIT Trade State Reports and ESMA calculations

Chart 4

EMIR REFIT DQI 1b - Number of Outstanding Positions



Note: LHS axis (millions of records): "*Flagged records*" refers to the number of outstanding derivatives at position level for which there is no reporting from both sides, where both sides are obliged to report. "*Total records*" refers to the number of outstanding derivatives at position level where both sides are obliged to report.
RHS axis (%): "*Significance*" refers to the percentage of "*Flagged records*" over the "*Total records*".

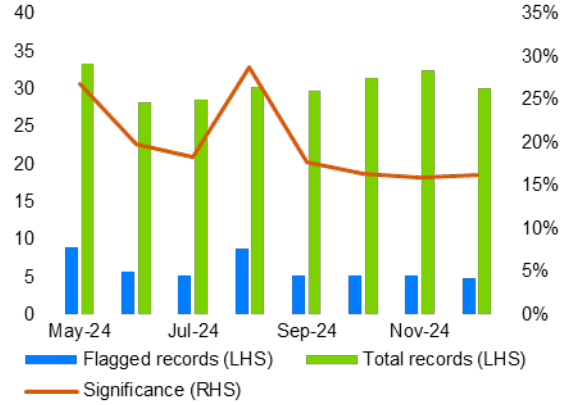
Sources: EMIR REFIT Trade State Reports and ESMA calculations

In Chart 4, EMIR REFIT DQI 1b highlights the discrepancies in the reported outstanding derivatives positions between two counterparties subject to double reporting. Like DQI 1a, these discrepancies pose challenges to authorities in obtaining an accurate understanding of entities' relevant exposures. The data reveals a consistent decrease in the percentage of errors over time. The latest figures, as seen in Chart 4, showcase a significant reduction in discrepancies, with the percentage of errors reaching a low of 22.17% as of 31-Dec-2024 from 55.16% in 31-May-2024.

In Chart 5, the EMIR REFIT DQI 5b is depicted which shows the number of outstanding derivatives with not updated valuation. The absence of up-to-date information on the valuation of outstanding derivatives limits authorities' capacity to reliably monitor exposure of key market participants which is especially crucial during crisis situations were supervisors need to obtain a clear picture within short time spans. The percentage of outdated valuations decreased to16.19% as of 31-Dec-2024 from 31-May-2024.

Chart 5

EMIR REFIT DQI 5b - Outdated valuations

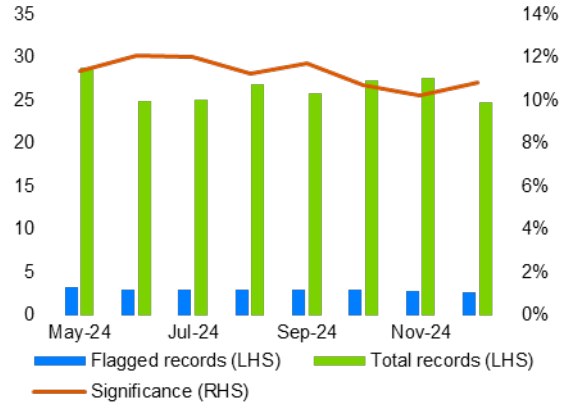


Note: LHS axis (millions of records): "*Flagged records*" refers to the number of outstanding derivatives with not updated valuation - only for FCs, NFCs+ and CCPs. "*Total records*" refers to the number of outstanding derivatives of FCs, NFCs+ and CCPs.
RHS axis (%): "*Significance*" refers to the percentage of "*Flagged records*" over the "*Total records*".

Sources: EMIR REFIT Trade State Reports and ESMA calculations

Chart 6

EMIR REFIT DQI 7a - Blank/abnormal Maturity Date



Note: LHS axis (millions of records): "*Flagged records*" refers to the number of outstanding derivatives with blank/abnormal maturity date - for derivatives other than CFDs. "*Total records*" refers to the number of outstanding derivatives other than CFDs.
RHS axis (%): "*Significance*" refers to the percentage of "*Flagged records*" over the "*Total records*".

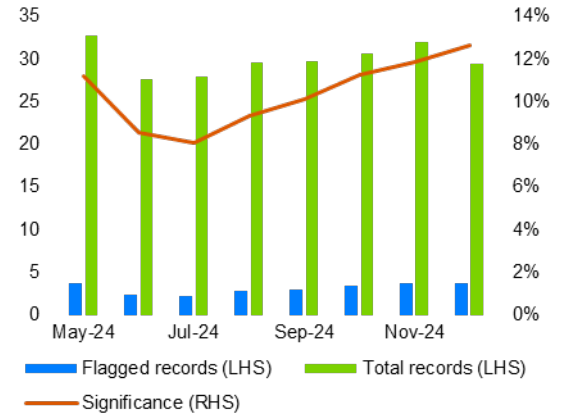
Sources: EMIR REFIT Trade State Reports and ESMA calculations

In Chart 6, EMIR REFIT DQI 7a illustrates the count of outstanding derivatives with missing or abnormal maturities, where abnormal maturity is defined as a derivative's maturity that exceeds 51 years. The absence or inaccuracy of information regarding maturity dates can result in a flawed assessment of exposures by either counting expired derivatives as outstanding or vice versa. This also introduces uncertainty in estimating the future evolution of exposures. The percentage of outstanding derivatives with missing or abnormal maturities stands slightly above 10%. ESMA continuously monitors the level of the problematic records of each DQI across EEA and following the collaboration with the NCAs in the context of the triggering of the DQEF, a lower percentage is expected going forward, as a result of the anticipated corrective action of the reporting counterparties.

In Chart 7, EMIR REFIT DQI 5a illustrates the count of outstanding derivatives with missing valuations. Like EMIR REFIT DQI 5b (outdated valuations) the absence of data in this crucial field directly impacts authorities' ability to monitor exposures accurately. The percentage of outstanding derivatives with missing valuations has been recently increasing, hence the triggering of the DQI 5a. As a follow-up, ESMA and NCAs will closely monitor the evolution of this DQI, which stands at 12.63% as of 31 Dec-2024.

Chart 7

EMIR REFIT DQI 5a - Missing Valuation

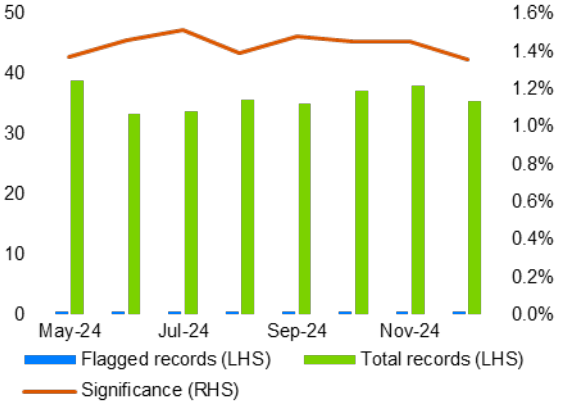


Note: LHS axis (millions of records): "*Flagged records*" refers to the number of outstanding derivatives with missing valuation - only for FCs, NFCs+ and CCPs. Derivatives executed on T and T-1 as well as derivatives at position level where notional amount and notional quantity are excluded. "*Total records*" refers to the number of outstanding derivatives under the scope as described above.
RHS axis (%): "*Significance*" refers to the percentage of "*Flagged records*" over the "*Total records*".

Sources: EMIR REFIT Trade State Reports and ESMA calculations

Chart 8

EMIR REFIT DQI 9a – Entity Responsible for Reporting



Note: LHS axis (millions of records): "*Flagged records*" refers to the number of outstanding derivatives with incorrect ERR. ETD derivatives are excluded. "*Total records*" refers to the number of outstanding derivatives other than ETDs.
RHS axis (%): "*Significance*" refers to the percentage of "*Flagged records*" over the "*Total records*".

Sources: EMIR REFIT Trade State Reports and ESMA calculations

In Chart 8, EMIR REFIT DQI 9a showcases the number of outstanding derivatives with incorrect Entity Responsible for Reporting. The level of this DQI stands slightly below 1.5%, namely at 1.36% as of 31-Dec-2024. Even though it is below the 5% threshold, this DQI was selected to also be included in the set of DQIs triggered for the latest iteration of the DQEF, as the correct reporting of the Entity Responsible for Reporting is a crucial addition under EMIR REFIT.

Overall, taking into account also the result for the rest of the DQIs not presented in this report, the levels of the EMIR REFIT DQIs highlight the need for further engagement with the relevant reporting entities to assume corrective action with regards to their reporting. Therefore, ESMA will diligently process the entity feedback that was received end of March 2025 from the NCAs following the latest dissemination of results under the DQEF and will monitor the level of the DQIs going forward to assess the anticipated potential improvement. If the situation does not improve with some of the DQIs, another follow-up using supervisory actions with the entities that misreport or TRs is foreseen. It is expected that in general, the future results of the DQIs will demonstrate a continuous improvement following the addressing and minimizing reporting errors as a result of the efforts of the NCAs and ESMA in resolving the data inconsistencies in the context of the latest iteration of the triggering of the DQEF.

On TR-side ESMA plans to focus the supervisory activity (outside the usual

monitoring) on two key subjects to foster data quality of the REFIT dataset. First, on the reconciliation of double-sided derivatives, especially since the reconciliation between TRs continues to be challenging under REFIT. Secondly, on the correct implementation of supervisory access rights to ensure that authorities receive the data there are entitled to.

4.4.3 SFTR Data Quality Indicators

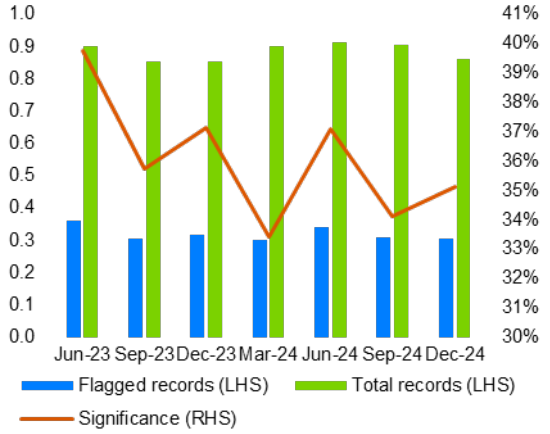
In 2024, the SFTR DQIs were finalised and the information on some select SFTR DQIs results is displayed in this section, with the aim of informing reporting counterparties on data quality issues and also highlighting the need for further follow-up and enhancements. The SFTR DQIs included in this report[51] were selected to allow for comparison with the EMIR REFIT DQIs. ESMA considers the trend of each DQI, which generally is stable or improving. In cases of no significant improvements, actions are going to be taken with a heightened priority.

Similarly, ESMA continuously monitors the resolution status of any issues affecting data quality that may reside on the TRs' side. Particularly regarding SFTR, a TR issue due to which inflated market values were observed has been resolved with the pending correction of historical data being monitored. However, no issue was identified that could have an impact on the results on the SFTR DQIs that are included below.

In Chart 9, SFTR DQI 1a displays the difference in the number of outstanding SFTs at trade level between a given pair of counterparties as reported by the two sides. During the observation period, June 2023 until the end of 2024, this DQI shows on average 35% of mismatch between the outstanding records for pairs of counterparties on the same as-of-date. This DQI is above the 5% agreed threshold. For the sake of comparison, EMIR REFIT DQI 1a stands lower - at 20.5% as of December 2024. ESMA and the NCAs will work in tandem with reporting counterparties to address this reporting mismatch.

Chart 9

SFTR DQI 1a - Number of Outstanding Trades



Note: LHS axis (millions of records): "*Flagged records*" refers to the number of outstanding SFTs at trade level for which there is no reporting from both sides, where both sides are obliged to report. "*Total records*" refers to the number of outstanding SFTs at trade level where both sides are obliged to report.
RHS axis (%): "*Significance*" refers to the percentage of "*Flagged records*" over the "*Total records*".

Sources: SFTR Trade State Reports and ESMA calculations

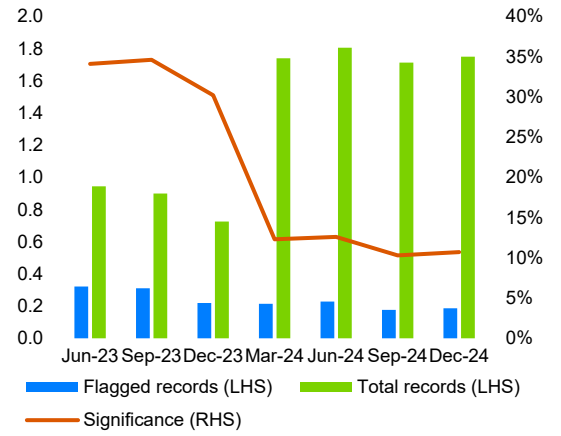
In Chart 10, SFTR DQI 1b displays the difference in the number of outstanding SFTs at position level between a given pair of counterparties as reported by the two sides. Throughout 2024, the level of this DQI remained stable around 10%, once again it is above the 5% agreed threshold of significance. The decrease from 2023 to 2024 is due to an increase in the number of records that are within the scope of this DQI, namely SFTs reported at position level, being mindful however of the relatively low number of SFTs reported at position level overall. For the sake of comparison, EMIR

[51] The SFTR DQIs charts provide an overview as of February 2025 and therefore might not include corrections made after the snapshot for the report was taken.

REFIT DQI 1b stands higher - at 22.17% as of December 2024.

Chart 10

SFTR DQI 1b - Number of Outstanding Positions



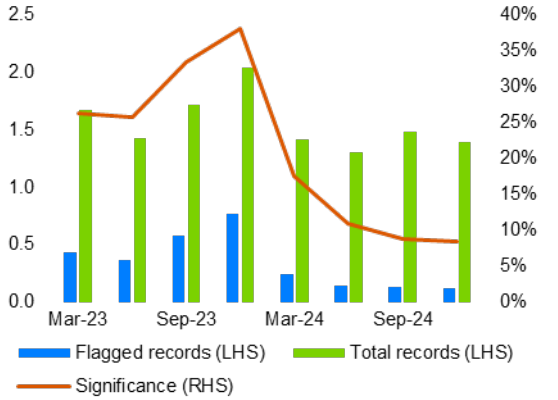
Note: LHS axis (thousands of records): "*Flagged records*" refers to the number of outstanding SFTs at position level for which there is no reporting from both sides, where both sides are obliged to report. "*Total records*" refers to the number of outstanding SFTs at position level where both sides are obliged to report.
RHS axis (%): "*Significance*" refers to the percentage of "*Flagged records*" over the "*Total records*".

Sources: SFTR Trade State Reports and ESMA calculations

In Chart 11, SFTR DQI 5a displays the number of securities lending transactions with missing market value, a data element that is crucial for a swift assessment of entities level of risk. This DQI has exhibited a dramatic improvement in the reporting of market valuations due to amelioration of reporting by a few of the major reporting entities. The level of this DQI decreased to 8.5% as of 31-Dec-2024 from 26.3% as of 31-Mar-2023, nonetheless again above the 5% threshold. For the sake of comparison, EMIR REFIT DQI 5a stands higher - at 12.63% as of December 2024.

Chart 11

SFTR DQI 5a – Missing Market Value



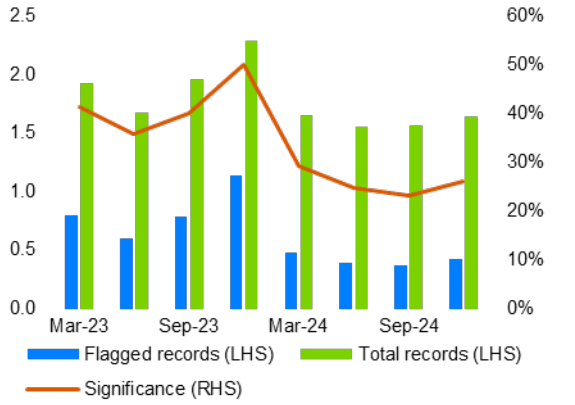
Note: LHS axis (millions of records): "*Flagged records*" refers to the number of outstanding securities lending transactions with missing market value. "*Total records*" refers to the number of outstanding SFTs under the scope as described above.
RHS axis (%): "*Significance*" refers to the percentage of "*Flagged records*" over the "*Total records*".

Sources: SFTR Trade State Reports and ESMA calculations

In Chart 12, SFTR DQI 5b displays the number of securities lending transactions with outdated valuation. Like in EMIR, having updated information in times adverse market movements and crises is crucial for authorities. The level of this DQI decreased to 26% as of 31-Dec-2024 from 41.4% in 31-Mar-2023, nonetheless being so far the worst among the depicted DQIs. It results therefore imperative for counterparties to swiftly follow on the identified issues with outdated valuation and address them accordingly. For the sake of comparison, EMIR REFIT DQI 5b stands lower - at 16.19% as of December 2024.

Chart 12

SFTR DQI 5b – Outdated Valuations

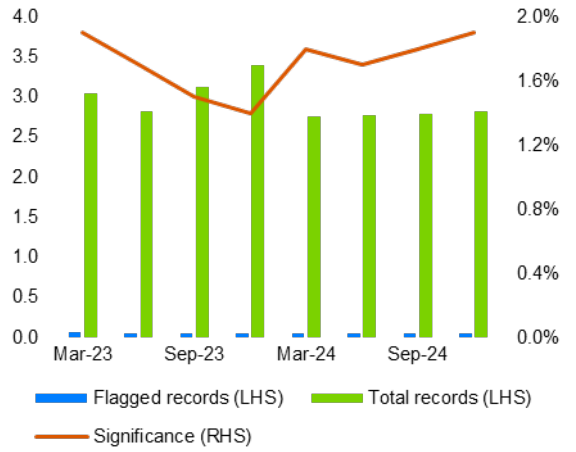


Note: LHS axis (millions of records): "*Flagged records*" refers to the number of securities lending transactions that are outstanding at the end of the month (day T) where valuation update was not submitted for more than one working day (i.e. no valuation was submitted on T, T-1 or T-2, based on the event date), accounting for weekends, target calendar and national holidays. "Total records" refers to the number of outstanding SFTs under the scope as described above.
RHS axis (%): "*Significance*" refers to the percentage of "*Flagged records*" over the "*Total records*".

Sources: SFTR Trade State Reports and ESMA calculations

Chart 13

SFTR DQI 9a – Entity Responsible for Reporting



Note: LHS axis (millions of records): "*Flagged records*" refers to the Number of outstanding SFTs with incorrect ERR (CP1 is a FC other than UCITs or AIF and the ERR is different from CP1, or CP1 is UCITS or AIF and the ERR is same as CP1). "Total records" refers to the outstanding number of SFTs.
RHS axis (%): "*Significance*" refers to the percentage of "*Flagged records*" over the "*Total records*". The value depicted on the LHS as a percentage of the total number of outstanding SFTs, where counterparty from a given jurisdiction is CP1.

Sources: SFTR Trade State Reports and ESMA calculations

In Chart 13, SFTR DQI 9a displays the number of outstanding SFTs with incorrect Entity Responsible for Reporting. The level of this DQI stands at 1.9% as of 31-Dec-2024. SFTR DQI 9a on the entities responsible for reporting is showing a consistent picture on the data quality which is slightly over 1 percent of errors in the reporting. ESMA always encourages the amelioration of reporting even in cases where the error rate is below the DQEFs which govern actions taken to tackle data quality. However, the entity responsible for reporting is very important for attributing errors for most other data quality issues to the correct reporting entity. For the sake of comparison, EMIR REFIT DQI 9a stands slightly lower - at 1.36% as of December 2024.

In summary, the SFTR DQIs shown in this section but also DQIs not included in this report lead to the conclusion that the quality of the SFTR data has still large margins of improvements. ESMA expects that reporting entities increase the quality of their reported data significantly. The ongoing engagement between the NCAs and ESMA through the existing DQEF and NCAs follow-up activities are expected to bring further improvements. In addition, the NCAs are encouraged to follow-up with as many reporting entities as possible, even if the error rates are below the DQEF thresholds. In this spirit, ESMA welcomes feedback on data quality regardless of the error significance magnitude.

4.5 MiFIR data

4.5.1 Data Reporting Services Providers (DRSPs)

4.5.1.1 DRSPs overview

DRSPs are entities introduced by MIFIR[52], whose primary function is to enable investors and NCAs to receive accurate and timely market data. Based on the type of reporting service, MIFIR envisages three categories of DRSPs: ARMs[53], APAs[54] and CTPs[55].

Starting from 1 January 2022, ESMA was granted direct responsibilities regarding the authorisation and supervision of DRSPs, except for those APAs and ARMs that fall under a derogation. [56]

Following the results of the assessment using complete 2022 data and the withdrawal of Euronext[57] ARM and APA license, ESMA supervised in 2024 eight different DRSPs[58], six with an APA license and five with an ARM license. The ARMs supervised by ESMA account for 99% of the transaction reporting going through ARMs in the EU.

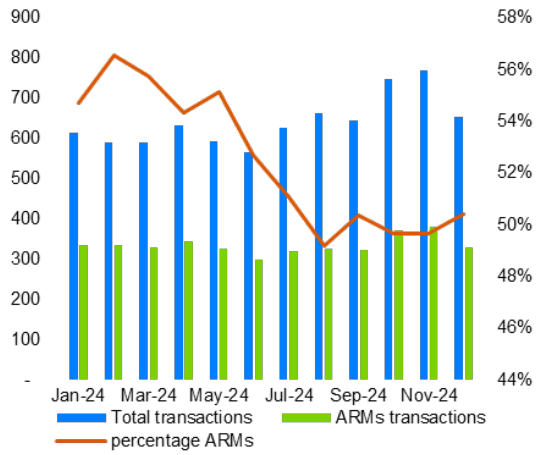
In December 2024, ESMA published the Final report on the first batch of technical standards related to CTPs. The selection for the CTP and the subsequent authorisation of CTPs is expected to start in January 2025. The process is planned with a phased in approach, starting with the bonds CTP, then the equity one and finalising with the OTC derivatives one, with a 6-month period between the start of each selection phase.

4.5.1.2 ARMs and APAs data quality

In 2024, the total number of MiFIR transactions reached approximately 7.7 billion, with ARMs (Authorised Reporting Mechanisms) transactions contributing around 4 billion. The average percentage of ARMs-reported transactions was 52.45%. Compared to 2023, there was a notable increase in both total transactions and ARMs transactions in 2024. Total transactions rose by nearly 700 million, from 7 billion in 2023 to 7.7 billion in 2024. However, the percentage of ARMs transactions saw a slight decrease of 2.31%, from 54.59% in 2023 to 52.28% in 2024. This suggests that although the overall volume of transactions grew, the proportion of transactions reported through ARMs decreased slightly.

Chart 14

Total number of MiFIR transactions and ARMs transactions

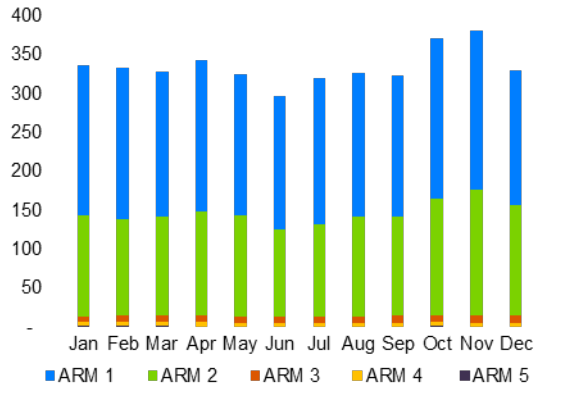


Note: Total Number of transactions, transactions reported through ARMs (in millions) and percentage.
Sources: Transaction files received under MiFIR article 26

[52] The definition of DRSP can be found in MIFIR – Article 2 points (34) to (36a)
[53] Entities providing the service of reporting details of transactions to CAs or to ESMA on behalf of investment firms.
[54] Entities providing the service of publishing trade reports on behalf of investment firms.
[55] Entities providing the service of collecting trade reports from trading venues and APAs, consolidating them into a continuous electronic live data stream providing price and volume data per financial instrument.
[56] See Publications Office
[57] ESMA announcement, 13 Feb 2024
[58] The list of authorised DRSPs can be consulted on the ESMA Register on entities authorised by NCAs by filtering on the type of entity (i.e. APA or ARM).

Chart 15

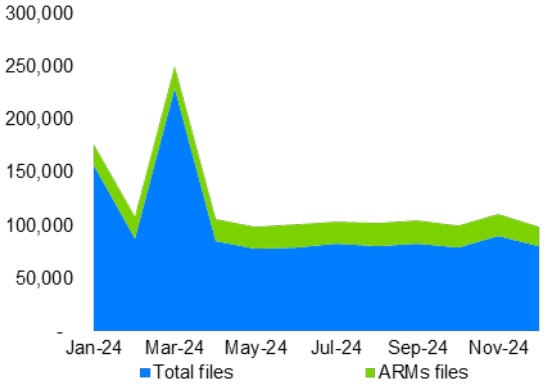
Total number of MiFIR transactions received by ARMs supervised by ESMA



Note: Total Number of monthly transactions (in millions) per ARM supervised by ESMA grouped by execution date

Chart 16

Total number of MiFIR files received by ESMA



Note: Number of monthly files (grouped by reception month)
Sources: Transaction files received under MiFIR article 26

The number of transactions received per country is highly concentrated in four jurisdictions, accounting for 82% of total transactions. The total number of files reported also increased from 1.15 million in 2023 to 1.21 million in 2024, reflecting higher reporting activity. The average number of transactions per file increased from 6,072 in 2023 to 6,334 in 2024. Notably, two countries reported the highest number of files in 2024, accounting for 42% of the total[59]. The average number of transactions per file ranged between 41 and 38,000, indicating different market concentrations depending on the country.

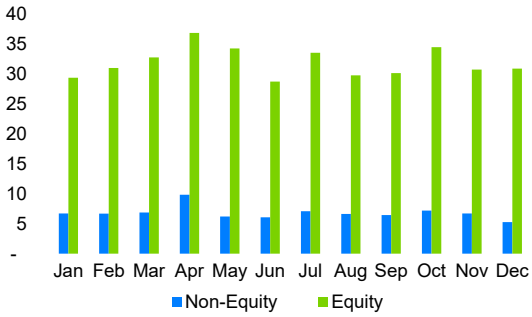
Overall, the percentage of rejected files and transactions by NCAs is low, showcasing streamlined reporting and high compliance level. The data suggests that the number of rejected files is correlated with the volume of files received. NCAs handling larger volumes of files generally maintain lower rejection ratios, indicating robust validation processes and efficient reporting. However, in some particular cases, the percentage of rejected transactions is significant due to specific validation rules and counterparties reporting logic.

In 2024, the total number of trades made public by APAs (Approved Publication Arrangements) saw a significant increase, reaching approximately 460 million trades, compared to 237 million trades in 2023. This represents a growth of 94.1%, largely due to the publication of transactions in fractional shares. Notably, one APA made published over 283 million trades.

[59] High increase in number of files received by ESMA in March 2024 is caused by resubmission of large number of historical files by one authority.

Chart 17

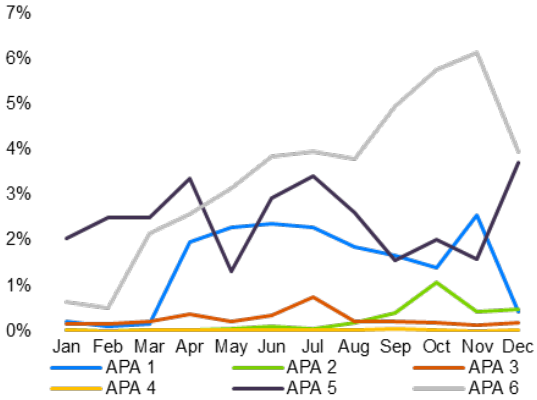
Total monthly transactions made public by ESMA's supervised APAs per asset class



Note: Total number of monthly transactions (in millions) per asset class APA supervised by ESMA

Chart 18

ESMA's supervised APAs rejected ratio



Note: Monthly average rejected ratio per APA supervised by ESMA (in percentage)

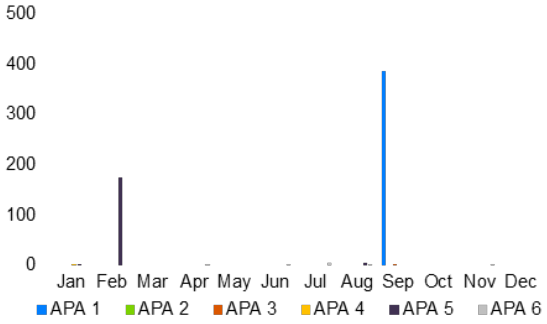
Equity-like trades increased by 126% and non-equity-like trades grew by 20%. This highlights a significant increase in trading activity compared to 2023, with both equity-like and non-equity-like trades experiencing substantial growth.

Some APAs rejected a higher number of transactions from their customers during certain months, due to specific operational issues on the customer side. Conversely, other APAs maintained consistently low rejection rates, indicating more stable operations. The overall trend shows an increase in rejection rates from January to mid-year, followed by fluctuations towards the end of the year. Overall, the trend is similar to last year (with exception of one APA for which the trend improved).

The average time to publish once the APA receives the data is typically immediate, highlighting the efficiency and swiftness of the process. However, there have been instances where the average time has been extended for some APAs due to specific issues on their end.

Chart 19

Average time to make public transactions from submission to ESMA's supervised APAs



Note: Monthly average time to publish transactions per APA supervised by ESMA (in seconds)

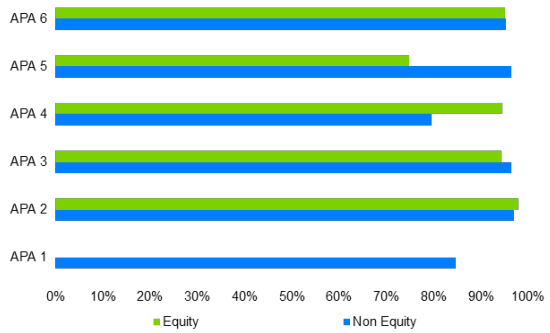
The analysis of the weighted average number of non-deferred transactions made public within the required timeframe per APA shows a high level of compliance. For Non-Equities, the weighted average is 91.57%, while for Equities, it is at 91.29%. This indicates consistent performance in adhering to the required timeframe, however, further improvement is still needed. Compared to

the previous year, there was a moderate improvement, except for one APA.

There are variations among APAs. Some perform exceptionally well in both asset classes, with percentages close to or above 95%. For instance, APA 4 shows a lower percentage for non-equities (79.62%) but performs better for Equities (94.45%). Conversely, APA 5 displays a significant difference, with a high percentage for Non-Equities (96.47%) but a lower percentage for Equities (74.72%). These variations suggest that while some APAs maintain high standards of timeliness across both asset classes, others have room for improvement, particularly in specific asset classes. ESMA, through continuous supervisory monitoring, aims to ensure that all APAs achieve and maintain high standards of efficiency and reliability to fulfil their regulatory requirements.

Chart 20

Weighted average of non-deferred trades made within the required timeframe by ESMA's supervised APAs



Note: Weighted average of non-deferred transactions made public within the required timeframe per APA supervised by ESMA (in percentage) and Asset class.
Sources: Periodic reporting from supervised entities

Regarding the main data quality issues, ESMA identified four significant compliance problems affecting three different APAs. These issues include problems with the publication of deferred transactions, periods of non-publication of data on the APA's website, incomplete APA data on the APA's website, and incorrect reporting of APA data to FITRS transparency quantitative data. In all cases ESMA directly follows up with the relevant firms to ensure remediation of the issue.

4.5.2 Data quality in the context of MiFIR Transparency and Volume Cap calculations

MiFIR introduced pre- and post-trade transparency requirements for equities, bonds, structured finance products, emission allowances and derivatives. MiFIR foresees some exemptions to those rules and empowers competent authorities to waive pre-trade transparency under specific conditions. Some transactions also benefit from a deferred post-trade publication. In this context, ESMA collects MiFIR transparency data through direct submission by trading venues and APAs from all over Europe and supports competent authorities in their work through multiple publications.

With the decision to enable the use of MiFIR transaction data for the purposes of Transparency and Volume Cap calculations (see Section 3.2.2), ESMA and NCAs implemented a dedicated DQEF to address the most critical data quality issues in the data. The aim is to launch the DQEF during H12025 to enable NCAs and reporting firms to address most critical data quality issues prior to the go-live of the new Transparency and Volume Cap calculation system and thus minimize the risks of inaccurate results stemming from such issues. NCAs and ESMA will begin liaising with ARMs, investment firms, and trading venues following the risk-based approach with predefined thresholds as defined in the DQEF.

4.6 Securitisation data

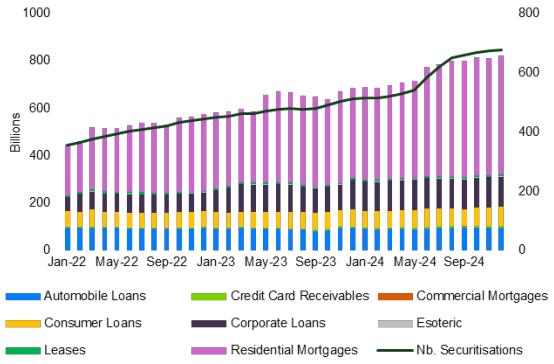
4.6.1 Data collected by ESMA

Under the Securitisation Regulation, ESMA receives through securitisation repositories (SRs) information on public securitisations, including on underlying exposures and

investor reports. SRs transmit to ESMA investor reports, significant event reports, granular data on underlying exposures, and daily end-of-day reports with aggregated data at securitisation level. ESMA also maintains a register of simple, transparent, and standardised securitisation (STS), with information coming from originators and sponsors. These securitisations fulfil a series of requirements designed to allow market participants to discern simple, transparent, and standardised products from more complex, opaque, and risky investments.

Chart 21

Aggregated current principal balance

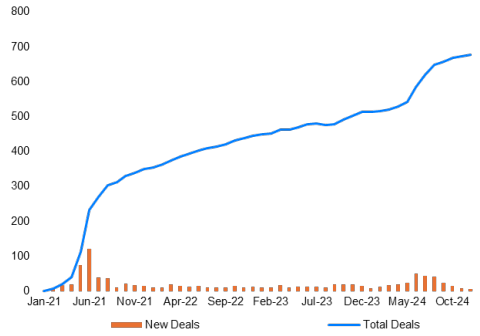


Note: Aggregated current principal balance, in EUR bn (LHS). Total bumber of outstanding securitisations (RHS).
Sources: Securitisation repositories, ESMA

Total aggregated current principal balance or the amount of principal still due on the pool of outstanding securitised products reached EUR 823bn at the end of 2024, up from EUR 684bn at the end of the previous year (Chart 21). This increase is primarily due to the catch-up effect in the data collection process, following the conclusion of the transition period on 1 October 2024, after which EU securitisations were required to be reported using only the ESMA reporting templates instead of ECB ones. 61% of these outstanding amounts were linked to residential mortgages, followed by corporate loans (16%), automobile loans (12%) and consumer loans (10%). As of December 2024, 677 individual securitised products have reported.

Chart 22

Total outstanding deals vs. new deals



Note: Total outstanding deals and new reported deals.
Sources:Securitisation repositories, ESMA.

Since the start of the reporting obligation in 2021, the new deals issuance is relatively constant while the total outstanding securitisations exhibit a consistent upward trend. During this period, two peaks can be observed first one after the entry into force of the obligations in 2021 and second in 2024 before the end of the transition period for using ESMA templates. These are attributed, as explained in the previous paragraph, to the spikes in switching to reporting using ESMA templates (Chart 22).

Following the establishment of the reporting obligations in 2021, there is a sharp increase in the reporting of deals as entities switched to using ESMA templates for reporting. Over time, the total outstanding securitisations exhibit a consistent upward trend, with peaks in new deals during 2024 aligning with the slight increase in the total outstanding deals for the same period.

4.6.2 Securitisation Data Quality Indicators

The disclosure framework under ESMA disclosure RTS[60] allows for situations in which reporting entities are granted the option to submit an incomplete set of information when data unavailability can be justified by valid reasons, using the No Data

[60] https://eur-lex.europa.eu/eli/reg_del/2020/1224/oj/eng

Option. The current reporting framework includes five distinct types of No Data Options, each linked to an ND code that provides a reason for the unavailability of a specific field. SRs are responsible for verifying the completeness of data submissions, so they compute and disclose a 'data completeness score'[61]. Given that there may be an excessive reliance on ND options, this score is determined by considering the extent of their use, as an indicator of data completeness.

Chart 23

Data completeness score

	ND1 = 0%	0% < ND1 <=10%	10%<ND1 <=30%	ND1> 30%
ND2-4 = 0%	43.7%	12.9%	1.8%	0.3%
0% < ND2-4 <=20%	20.8%	17.3%	0.9%	0.0%
20% < ND2-4 <=40%	1.5%	0.4%	0.0%	0.0%
ND2-4 <=40%	0.4%	0.0%	0.0%	0.0%

Note: ND1: Percentage of fields entered as 'ND1', ND2-4: Percentage of fields entered as 'ND2', 'ND3' or 'ND4'. ND1: where the required information has not been collected because it was not required by the lending or underwriting criteria at the time of origination of the underlying exposure; ND2: where the required information has been collected at the time of origination of the underlying exposure but is not loaded into the reporting system of the reporting entity at the data cut-off date; ND3: where the required information has been collected at the time of origination of the underlying exposure but is loaded into a separate system from the reporting system of the reporting entity at the data cut-off date; ND4: where the required information has been collected but it will only be possible to make it available at a date taking place after the data cut-off date Sources: Securitisation repositories, ESMA

Although in 43.7% of cases, no ND options are being used, their usage remains widely spread across the securitisations considered for this analysis.

ESMA is monitoring daily the information received in the STS register and end-of-day reports through daily statistics on i.e., new STS notifications received, outstanding deals by asset class, different comparisons between the two datasets.

ESMA is aiming at further enriching the quality of securitisation data during 2025 and enable the usage of information for supervisory purposes.

4.7 Funds data

4.7.1 AIFMD and MMFR

ESMA and NCAs receive data reported by asset managers on funds authorised and registered under the Alternative Investment Fund Managers Directive (AIFMD) and the Money Market Fund Regulation (MMFR). The data under both frameworks have been used by ESMA to monitor the fund industry development, to support policy activities and promote supervisory convergence[62]. The data support the NCAs in their supervisory activity, being the direct supervisors of managers and funds authorised in the EU.

For 2024, ESMA and the NCAs agreed on changes to the Data Quality Engagement Framework (DQEF) for the AIFMD and MMFR reporting. First, in line with the ESMA strategy and with the other frameworks, a risk-based approach[63] has been introduced with the aim to focus on the most relevant data quality issues from an EU perspective while reducing the burden on ESMA, the NCAs and the reporting entities. Another relevant change relates to the frequency of execution of data quality checks has increased from an annual frequency to a semi-annual for AIFMD and quarterly for MMFR reporting.

[61] Article3 of the RTS on operational standards

[62] Paragraphs 3.2.4 and 3.2.9 of this report include key projects carried out in 2024 making use of AIFMD and MMFR data

[63] Under the new risk-based approach, reporting entities that submit potential erroneous or incomplete information, affecting the scope or accuracy of the data, are flagged by ESMA if both of these criteria are fulfilled: i) the issue impacts more than 5% of records and ii) the reporting manager contributes to more than 1% to such issue.

4.7.2 Data Quality Indicators

In 2024, 41 tests have been performed under AIFMD DQEF, and 32 tests have been performed under MMFR DQEF. The results presented in this section refer to the latest iteration of the DQEF referring to the first half of 2024 for AIFMD and the 3Q24 for MMFR.

In terms of completeness - data for a total of 25,347 AIFs were reported to ESMA in 1H24 and 394 MMFs. For AIFMD data, no legal deadline for submissions to ESMA is set in the Directive, thus verifying the completeness of the population remains challenging. For MMFR, a new check has been introduced to verify the completeness of the fund population[64]. The check compares the funds above the regulatory threshold in the previous quarter with the number of active funds in the ESMA register and the number of funds reporting in the system. It is interesting to note that across jurisdictions, funds below the regulatory threshold – that are entitled to report on a yearly basis – still report on a quarterly basis.

Table 3

MMFs reporting in the system

MMF Domicile	Funds above threshold in the previous quarter	Active funds in ESMA register	Funds reporting in MMFR database
BE	2	6	6
DE	4	5	4
ES	4	4	4
FI	1	1	1
FR	126	180	169
GR	2	8	2
HR	-	5	-
HU	1	4	1
IE	79	118	87
IT	2	3	2
LI	4	7	7
LU	103	117	106
NL	2	3	2
PT	1	3	3
SI	-	2	-
Total	**331**	**466**	**394**

The AIFMD DQEF was triggered for 10 tests under the risk-based approach for a total of 13,528 warnings. The tests are related to anomalous values detected in the Net Asset Value, the investors' profile, risk measures and the completeness of LEIs of funds. The check for investors' profile aims at shedding light on the share of investors with a sectorial classification reported as unknown. It is worth mentioning that AIFs sold via multiple distribution channels or banks, information on the investor base is in certain cases currently not available, making it difficult to systematically address the issue. The check related to risk measures aims to enhance the completeness of risk measure reporting. According to ESMA's Opinion[65], ESMA sees merit in NCAs' requiring information on the risk measures of the AIFs to be reported and in case a measure of risk is not applicable for an AIF or when AIFM report a zero value, an explanation shall be provided. However, it is

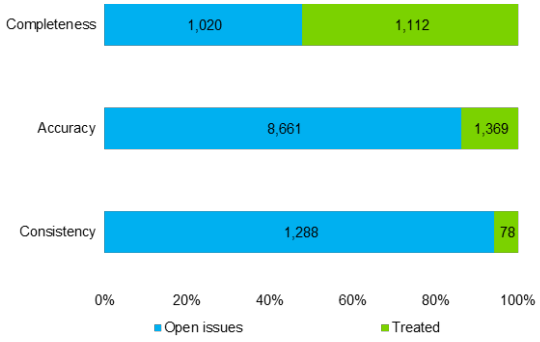
[64] According to MMFR, MMFs with a Net Asset Value above 100 million EUR must report quarterly, by derogation from the standard yearly reporting.

[65] ESMA50-164-4575 Collection of information for the effective monitoring of systemic risk under Article 24(5), first subparagraph, of the AIFMD

important to acknowledge that these fields were initially introduced as optional and many fund managers are still in the process of adapting their IT systems to accommodate these additional data requirements. While some have already adjusted, others require further time to implement necessary changes. As a result, the current high number of warnings is expected to decrease over time, reflecting the combined efforts of NCAs in enforcing the reporting of these fields and the industry's ongoing adaptation to the requirements.

Chart 24

Data quality indicators for AIFMD



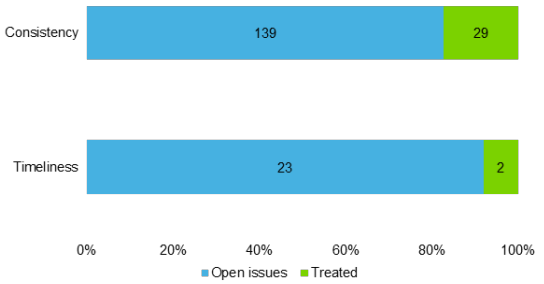
Note: Number of warnigns flagged with the risk-based approach and number of warning treated (i.e. corrected or flagged as false positive by the NCAs).
Sources: ESMA

Overall, 19% of the flagged warnings have been addressed, either through the resubmission of reports or by being classified as false positives by the NCAs after verification with the reporting entities. The proactive treatment of issues ranges from 52% for completeness to 6% for data quality related to the accuracy of the information.

The MMFR DQEF was triggered for tests related to the timeliness of the submissions (i.e. reports submitted after the legal deadline of 30 days after the end of the reporting period) and the investors' profile. Overall, 16% of the issues have been addressed.

Chart 25

Data quality indicators for MMFR



Note: Number of warnings flagged with the risk-based approach and number of warnings treated (i.e. corrected with a resubmission or flagged as false positives)
Sources: ESMA

Despite the introduction of the risk-based approach which has reduced the number of potential warnings identified requiring investigation, the share of warnings actively addressed at EEA level remains low[66], in line with the previous data quality cycles for funds data.

ESMA and NCAs will proactively review the DQEFs to introduce further enhancements in those and increase the corrections, including redefining the tests generating large number of false positives.

4.8 Short-selling data

The Short Selling Regulation (SSR) plays a crucial role in ensuring the transparency and stability of European financial markets by regulating short selling and certain aspects of credit default swaps (CDS). By requiring investors to notify significant net short positions in shares, the SSR helps mitigate risks that could arise from excessive short positions, especially in volatile market conditions.

[66] It is worth noting that the process of following up with the reporting managers is still ongoing for the AMF, which accounts for a large share of outstanding issues for both MMFR and AIFMD. The AMF has not identified any false positive, so asset managers are asked to resubmit reports with issues. Data quality is expected to improve as the reports are amended.

NCAs report to ESMA net short positions on shares identified by their ISIN in percentage of issued share capital above a reporting threshold. As of end of 2024 all NCAs have transitioned to daily reporting.

Ensuring the highest standards of data quality in the SSR database is fundamental to providing regulators with the accurate, consistent, and timely information they need to safeguard the financial system.

To increase the data usability, ESMA and NCAs developed a Data Quality Engagement Framework (DQEF) to monitor the completeness and accuracy of the data. In line with the risk-based approach the SSR DQEF focuses on shares only, as this asset class was considered the most important for market analysis by the NCAs. ESMA staff designed a new system of exchange with NCAs via automatically generated personalised emails and containing information on the weekly data quality checks to flag missing or suspicious information. To further enhance the cooperation with NCAs, ESMA also shared all the codes used to analyse the SSR data and to generate automatic feedback in the ESMA Data Platform (EDP).

ESMA started to run the data quality process at the beginning of 2025 and it had already a significant impact on data quality. Only on completeness, missing report were identified for a total of 2089 NCAs-day combinations. For more than 1600 NCAs-day combinations the issues have been addressed, i.e. corrected or flagged as false positive (e.g. no data submitted but nothing to report).

Table 4

Evolution of SSR data completeness

NCA	Missing reports 03/01/2025	Missing reports 10/02/2025
AT	0	0
BE	3	1
BG	167	0
CY	1	0
CZ	2	0
DE	1	0
DK	64	22
EE	256	281
ES	51	0
FI	4	0
FR	0	0
GR	2	0
HR	175	0
HU	5	8
IE	1	1
IS	191	22
IT	2	0
LI	256	5
LT	146	0
LU	11	0
LV	254	12
MT	159	0
NL	53	1
NO	1	1
PL	125	6
PT	0	0
RO	58	0
SE	3	0
SI	58	55
SK	40	0
Total	2089	415

Note: Number of days with no SSREP shares data or empty reports received by ESMA from NCAs for the cut-off dates 03/01/2025 and the 10/02/2025
Source: SSREP, NCAs, ESMA

The automated approach introduced in the SSR DQEF has proven its effectiveness on improving the data quality from the start of its implementation. ESMA will continue to engage with NCAs to further improve the reporting, where necessary, as part of the framework.

4.9 European Single Electronic Format (ESEF) data

The European Single Electronic Format (hereafter, ESEF) was mandated for the preparation of annual financial reports pursuant to the Transparency Directive[67], since the reporting year 2021[68], with a phase-in approach. All issuers with securities admitted to trading on an EU regulated market must prepare their annual financial reports in xHTML and mark-up the IFRS consolidated financial statements using XBRL tags and embed those in the xHTML document using iXBRL technology.

Since the start of the reporting period, both NCAs and market participants raised several concerns with regards to the accessibility and usability of ESEF data. Based on this feedback, at the end of 2023 ESMA set a path forward with the aim to ease these concerns to the extent possible and support NCAs in extracting value from the available data.

As a first step, ESMA focused on improving NCAs' access to the data by implementing and sharing a code that would read and extract the information included in the XBRL files. The Official Appointed Mechanisms (OAMs) are the national centralised storage for annual financial reports. However, the annual financial reports extracted are the ones available on the repository set up by XBRL International, the https://filings.xbrl.org/ website[69], instead of the national OAMs. This was a much easier technical solution to kick-start the project and focus on the content of the files. NCAs approved of this approach and assessed the issuer coverage sufficient for a first assessment.

Chart 26

Number of files extracted, per sector

Note: Number of files extracted from https://filings.xbrl.org/ , covering issuers from EEA countries, except DE, BG and SK. The NACE code was the one used for the sector identification, and it is calculated by ESMA using FIRDS, Eikon and the EC website. In ESAP, this information will be immediately available and no other computations will be needed.
Sources: https://filings.xbrl.org/. EC, FIRDS, ESMA

A total of around 1,400 files[70] were extracted, belonging to issuers from the manufacturing sector (30 %), followed by the financial (16%) and technology / telecommunications services (10%). Moreover, ESMA identified accessing data from the national OAMs is one of the main challenges, often requiring manual processes and this being the driver for the reduced number of files extracted. For countries like Germany, the website does not allow a bulk download, thus excluding any German issuer from the data sample and analysis. Starting in July 2027, digitalised sustainability and financial reports from undertakings will be integrated in the future European Single Access Point (ESAP), ensuring the efficient access and use of this

[67] Directive 2004/109/EC

[68] The ESEF requirements (XHTML and XBRL) started to apply to financial years beginning on or after 1 January 2020. However, to alleviate the COVID impact, issuers in most Member States were allowed to delay the application of the ESEF requirements by one year.

[69] filings.xbrl.org is a repository of Inline XBRL filings. The repository currently contains filings that have been prepared under the following filing systems:

- The European Single Electronic Format (ESEF)
- The United Kingdom Single Electronic Format (UKSEF)
- The Ukraine Financial Reporting System

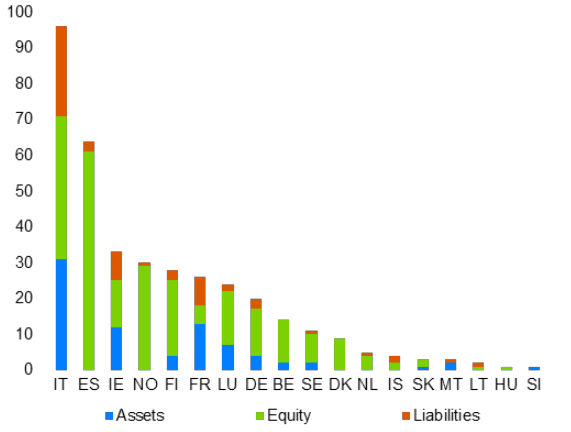
[70] This is the full scope that could be retrieved from https://filings.xbrl.org/ website. Although it does not fully represent the total number of annual financial reports prepared in the ESEF format, NCAs have assessed it as significant to carry out a data usability exercise.

information by investors, including reports submitted under ESEF.

In terms of extracting value and content, a preliminary observation is that the excessive usage of extension elements hinders data usability. In other words, some issuers create and use their own issuer-specific extensions for financial elements instead of using an available element from the IFRS taxonomy. The usage of extensions can be fully justified however, it may hinder data usage and quality when is not the case. ESMA looked into this practice for the components of the statement of financial position within the extracted ESEF filings (Chart 27).

Chart 27

Number of anchored non-IFRS elements



Note: Number of anchored elements that do not follow the IFRS taxonomy, per country. Data sample excludes issuers from DE, BG and SK.
Sources: ESEF reporting, ESMA

In the analysed reports, ESMA observed at least 374 non-IFRS elements with an extension and an anchor belonging to assets (21%), equity (63% - most affected), and liabilities (16%). In its analysis, ESMA did not assess whether line items necessitated the creation of extension taxonomy elements or whether these should have been marked up instead with the core taxonomy element that represented the narrowest accounting meaning and/or scope. ESMA is currently liaising with NCAs to clarify on whether the usage[71] of the extensions in the identified instances is necessary (as per the ESEF RTS) or may require follow-up from enforcers. To further support such efforts, in October 2024, ESMA published the European common enforcement priorities[72] for corporate reporting in 2025. Among other priorities, enforcers will look into common ESEF filing errors in the Statement of Financial Position including the justified creation of extension taxonomy elements and their proper anchoring.

The main objective of this work is to unlock the value of digital financial information provided by issuers for both NCAs and external stakeholders. ESMA will continue to further enrich this work, with the aim of extending its output to a wider audience i.e. external stakeholders.

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[72] ESMA32-193237008-8369 European common enforcement priorities for 2024 corporate reporting

5 Enforcement on reporting and data quality

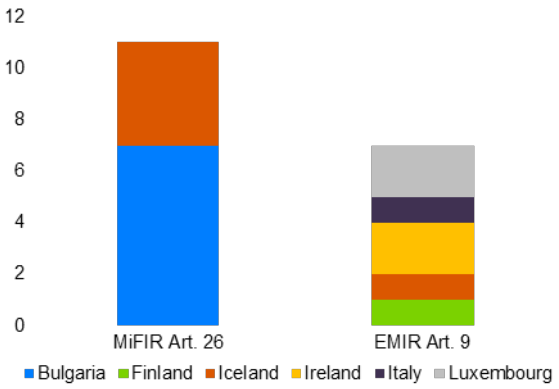
In 2024, based on data reported by NCAs to ESMA[73], ESMA published a consolidated sanctions report[74] covering measures and sanctions[75] issued by Member States under the EU capital market sectoral acts in ESMA's remit. Overall, more than 970 administrative sanctions and measures were imposed in 2023 across EU Member States, totalling an aggregate value of more than EUR 71 million.

In line with the ESMA Strategy 2023-2028, the consolidated sanctions report contributes to supervisory and enforcement convergence and facilitates greater transparency on sanctions. It provides useful data on the measures and sanctions, including in those issued in the area of data quality. In particular, when focusing on sanctions regarding breaches of their reporting obligations by market participants, the consolidated sanction report shows that the enforcement activity remains limited in this area.

In 2023, a total number of 11 measures and sanctions were imposed for infringement of Article 26 MiFIR from two Member States Bulgaria (7) and Iceland (4). No NCA issued sanction or measure related to Articles 20 and 21 MiFIR. For infringements of Article 9 EMIR, a total of 7 administrative measures and sanctions were issued in 2023 in Ireland (2), Luxembourg (2), Italy (1), Finland (1) and Iceland (1).

Chart 28

Total number of measures and sanctions regarding reporting obligations (2023)



Note: Number of administrative measures and sections imposed in 2023 under regulatory regimes in ESMA's remit in the area of data quality

In 2023, the total value of administrative fines imposed for breaches of Article 26 MiFIR were of an aggregated value of EUR 51,204 and for breaches of Article 9 EMIR of EUR 342,705.

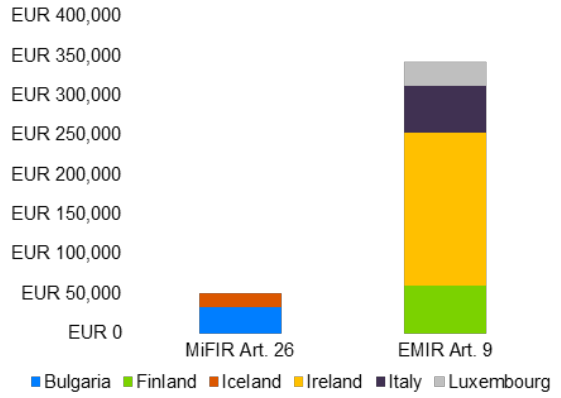
[73] In line with the provisions in the relevant sectoral acts, which state that NCAs must provide ESMA, annually, with aggregated information regarding all administrative sanctions and measures, including in some cases the imposed criminal sanctions.

[74] ESMA consolidated report on sanctions (ESMA, Oct 2024).

[75] Please see the report for more details on the scope (i.e which measures and sanctions are covered by the report), methodology and limitations of the overview provided in the report.

Chart 29

Total amount of administrative fines regarding reporting obligations (2023)



Note:Amount of adminisrtative measures and sanction imposed in 2023 under regulatory regimes in ESMA's remit in the area of data quality

In 2024, as part of the activities of the Senior Supervisors Forum (Enforcement configuration) and as a follow-up to ESMA's Union Strategic Supervisory Priority on data quality, ESMA also conducted a stocktake of formal enforcement actions adopted by NCAs from 2020 through 2023 regarding data quality under EMIR, SFTR and MiFIR.

From 2020 through 2023, 11 NCAs adopted sanctions or measures. A total of 158 enforcement sanctions and measures related to data quality were adopted. This number is largely due to the fact that certain NCAs impose multiple sanctions and measures for a single reporting breach covering multiple transactions.

No sanction was imposed under SFTR. Most sanctions were imposed under MiFIR (144).

All EMIR sanctions were pecuniary, whereas under MiFIR, the types of measures were more diverse (e.g. warnings, remedial actions). Settlements or accelerated procedures are common for certain NCAs.

The stocktake also revealed no clear correlation between the level of NCAs' enforcement activities on data quality and the relative size of the markets that they supervise.

Overall, the available data on sanctions by NCAs in the area of data quality highlights that there is still room for more convergence between NCAs in the exercise of their sanctioning powers. It should nevertheless be noted that the imposition of sanctions is only one of the multiple tools in the NCA's supervisory and enforcement toolkit, and supervisory effectiveness cannot be measured solely based on the number or value of the sanctions imposed in a Member State.

6 Conclusions and next steps

In 2024 ESMA took further steps in enhancing the monitoring of data quality and in fostering the use of data in line with the objectives included in the ESMA Data Strategy 2023-2028.

2024 was the year when ESMA and NCAs agreed for the first time on the discontinuation of duplicative reporting data flows by reusing the MiFIR transaction data to perform the Transparency and Volume Cap calculations, i.e., for a different purpose than its original one.

Since MiFIR go-live on 3 January 2018, the EMIR Refit go-live was the most impactful reporting regime go-live event in the EU, specifically considering the number of entities affected. While no major disruptions took place, it is imperative that market participants - TRs and reporting entities - continue enhancing their preparedness and their testing availabilities ahead of the start of reporting regimes. In 2025, ESMA and NCAs will continue their efforts in increasing the quality of this dataset, which is widely used by EU and NCAs, with a particular emphasis on the improvement of the reconciliation rates.

The go-live of Project SHARE, i.e. the onboarding of NCAs to the ESMA Data Platform, in June 2024 has been a critical milestone in uncovering the potential of closer cooperation between ESMA and NCAs. In 2025, ESMA and NCAs will continue their endeavours on mutualising codes for data analyses, carry out common data monitoring initiatives and foster an enhanced use of the data available. Further steps on data sharing and cooperation with the broader regulatory community will be pursued.

The continuous revision of DQEFs have proved to be an important tool to facilitate the supervisory work of ESMA and NCAs and to make an efficient use of their resources. However, as evidenced by this report, there are several areas, in particular under EMIR, SFTR and Funds reporting where further efforts should be made by reporting entities to increase the quality and usability of the data.

ESMA and NCAs will continue using all the relevant instruments in the supervisory toolbox, including enforcement measures, to further support the endeavour of enhanced quality of the data available.

The context in which ESMA operates has also evolved markedly over the last two years with a renewed political focus on the Capital Markets Union (CMU) — via the broader Savings and Investments Union (SIU) —, the rapid adoption of generative AI across financial markets and workplaces alike, and the more resource-constrained environment ESMA is expecting to face in the foreseeable future.

This new paradigm will lead ESMA to so as to ensure it remains best suited to deliver on all of its objectives, and continued access to usable data of sufficient quality by ESMA and its stakeholders will be key to achieving them. On this occasion, special attention will be given to making the most efficient use of available data and resources. This includes leveraging technological innovations, such as generative AI, which could transform ESMA’s operations and productivity, as well as exploring new ways to reuse existing data to reduce duplicative reporting and simplify the regulatory and supervisory reporting landscape, ultimately reducing the reporting burden to the industry.

7 Annex

7.1 Data quality dimensions (DQDs) assessed by ESMA

Regulation	Completeness	Uniqueness	Timeliness	Validity*	Accuracy	Consistency	Comment
AIFMD							Uniqueness is ensured at IT system level and monitored by ESMA
MMFR							Accuracy is included in the DQEF for MMFR but has not been triggered under the current risk-based approach; Uniqueness is ensured at IT system level and monitored by ESMA
FIRDS							
FITRS / DVCAP							Uniqueness of the records received are being ensured by the IT system, while timeliness is not an essential characteristic of this dataset.
EMIR							
SFTR							
SSREP							Timeliness is implicitly addressed by checking the completeness level on a weekly basis, very close to the reporting period; No consistency tests because the focus is on few key tests to check if data are reported regularly and accurately.

*Validity is maintained through validation rules at IT submission level for each report, ensuring that data failing to meet the required format and standards, as well as the internal consistency and accuracy in the reporting are rejected. ESMA staff monitors both acceptance and rejection rates.

Colour code: DQD addressed | DQD partially addressed | DQD not addressed | When the DQ is partially or not addressed, a comment is provided.

7.2 List of publications using data

ESMA	Trends, Risks and Vulnerabilities (TRV) Report - TRV 2024 No1 with Annexes – Jan 2024 - TRV 2024 No2 with Annexes – Aug 2024 Markets Reports - EU carbon markets – Oct 2024 - Market Report on Crowdfunding in the EU – Jan 2025 - EU securities financing transactions markets – Apr 2024 - Costs and Performance of EU Retail Investment Products and Annexes – Jan 2025 - EU Prospectuses – Jan 2025 - Statistics on Securities and Markets – May 2024) Note: all Market Reports are available on ESMA website: Risk monitoring page. Dashboards: MiFID dashboard 2023 TRV Article: - Assessing risk posed by leveraged AIFs in the EU – Jan 2024 Other publications: - 5th CCP Stress Test Report – Jul 2024 - CRA Market Share Calculation – Dec 2024
ECB/ESRB	FISEA report: The derivatives clearing landscape in the euro area three years after Brexit - 2024 Financial Stability Review - May 2024 - Box 5: "Assessing the liquidity preparedness of investment funds to meet margin calls in derivatives markets" - Box 3 "Financial stability risks from basis trades in the US Treasury and euro area government bond markets" Finance Research Letters: Repo haircuts: Market practices and the impact of minimum requirements on leverage – Jan 2025 Systemic liquidity risk: a monitoring Framework – February 2025 EFSIR report 2024 Macroprudential bulletin articles: Leveraged investment funds: A framework for assessing risks and designing policies – Jan 2025 Macroprudential bulletin article January 2025: Measuring synthetic leverage in interest rate swaps – Jan 2025
FMA (AT)	FMA Annual Report - 2024
CNVM (ES)	Securities markets Annual Report 2023 (Transaction reporting is used to elaborate Table I.2.2.8 Total trading of private fixed income instruments issued by Spanish companies) – 2024

	Derivative contracts in Spain and their contribution to systemic risk: Risk indicators based on the EMIR database – Nov 2024 Fragmentation, price formation and liquidity of Spanish equities in a European context – Dec 2024
AMF (FR)	2024 Markets and Risks Outlook - Jul 2024 Bond transparency: How to calibrate publication deferrals? - Jul 2024 L'évolution du marché des fonds monétaires français entre le 30 juin 2022 et le 30 juin 2024 - Oct 2024 Retail investor ETF activity - Nov 2024 Stock market drops: what are the characteristics, consequences, and possible causes of this phenomenon? - Nov 2024
LB (LT)	Investor market overview report
CSSF (LU)	Joint Report on the Luxembourg Derivatives Market, (CSSF and CAA - Mar 2024)
MFSA (MT)	EMIR Refit preparedness survey results - Jul 2024
AFM (NL)	Financial Stability Report - 2024

7.3 List of abbreviations

AIFMD Alternative Investment Fund Managers Directive
APA Approved Publication Arrangement
ARM Approved Reporting Mechanism
AuM Assets under Management
bps Basis points
CCP Central counterparty
CDS Credit Default Swaps
CTP Consolidated Tape Provider
DQD Data Quality Dimension
DQI Data Quality Indicator
DQEF Data Quality Engagement Framework
DRSP Data Reporting Service Provider
DTO Derivatives Trading Obligation
ECAI External Credit Assessment Institutions
EBA European Banking Authority
EDP ESMA Data Platform
EEA European Environmental Agency
EIOPA European Insurance and Occupational Pensions Authority
EMIR European Market Infrastructure Regulation
EMIR REFIT EMIR Regulatory Fitness Program
ERR Entity Responsible for Reporting
ESMA European Securities and Markets Authority
ESRB European Systemic Risk Board
EU European Union
ECB European Central Bank
ETD Exchange Traded Derivative
FC Financial Counterparty
FITRS Financial Instruments Transparency System
FIRDS Financial Instruments Reference Data System
IOSCO International Organization of Securities Commissions
IT Information Technology
LEI Legal Entity Identifier
LHS Left-Hand Side
RHS Right-Hand Side
MAR Market Abuse Regulation
MIC Market Identifier Code
MIFID Markets in Financial Instruments Directive
MIFIR Markets in Financial Instruments Regulation
MMFR Money Market Funds Regulation
NAV Net Asset Value

NCA National Competent Authority

NFC+ Non-financial Counterparties above the clearing threshold

OTC Over the counter

PRC Peer Review Committee

PoC Proof of concept

RHS Right-Hand Side

SI Systematic Internaliser

SFT Securities Financing Transaction

SFTR Securities Financing Transactions Regulation

SR Securitisation repository

STS Simple Transparent and Standardised (securitisation transactions)

SupTech Supervisory Technology

ToTV Traded on a trading venue

TR Trade repository

TRV Trends, Risks, and Vulnerabilities

TSR Trade State Report

TAR Trade Activity Report

VaR Value at Risk

VSC Voluntary Supervisory College

Currencies and countries abbreviated in accordance with ISO standards.