# Supervisory Data: ECB Management Report and Data Quality matters

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# Outline

1. **Risk Data Aggregation, Risk Reporting and Data Quality**

2. **Recent developments: Enhancing accountability**

   The management report on data governance and quality

3. **ECB Banking Supervision (BS) Data Quality**

   Immediate forwarding of supervisory reports and the impact on the

   ECB data quality assessment

# 1. Risk data aggregation and data quality at SIs: Cross cutting theme and long standing priority

*Non exhaustive examples*

| Main scope of data quality considerations | |
|---|---|
| **Banks' internal risk reporting** | • **All material risk reports and indicators** for banks' decision making<br>• Key risk **models**<br>• Reporting on **data quality** |
| **Supervisory reporting** | • Regular **FINREP/COREP** reporting<br>• Supervisory **stress tests**<br>• **Pilar 3** reports<br>• Other thematic or ad hoc data requests **(e.g., Covid-19)** |
| **Financial reporting** | • Risk/finance **reconciliation**<br>• **Financial statement's** analysis |

| Main assessments | |
|---|---|
| **On site inspections** | • Dedicated **methodology**<br>• Targeted **DQ Management** and **BCBS239 inspections**<br>• DQ assessment also covered in other non-dedicated missions |
| **Ongoing, off site supervision** | • **Thematic review** 2016/17(incl. fire drills, benchmarking)<br>• **Expectations published** in 2019<br>• Integrated in **annual risk reviews (SREP)**<br>• **International collaboration** |
| **Banking Supervision Data Division in DG Statistics** | • Established **data quality reporting** since 2017<br>• **Escalation** and follow-up process<br>• New **Management Report on Data Governance and Quality** |

# 2. Management report on data governance and data quality

*"In terms of good governance, there should be an adequate level of accountability of banks' senior management in the processes related to supervisory data reporting, production and transmission"*

Supervisory Board Decision SB/20/144/12.

→ Implemented through the **Management Report on Data Governance and Data Quality**

# 2. Management report on data governance and data quality

## What

- Fostering increased accountability of banks' senior management.

## Objectives

- **Define supervisory expectations on the role** for banks' senior managers in the production and transmission of supervisory data.
- **Improve the traceability of** banks' senior management **role** regarding the submission of supervisory data.
- **Identification of possible signals** of weaknesses in the institution's data aggregation capabilities.

## How

- **Request for feedback** on mitigation/remediation plans to address issues identified.
- **Focused declaration** on the quality and reliability of the data.

# 2. Management report on data governance and data quality

| PRE-POPULATED SECTION | QUESTIONNAIRE |
|---|---|
| **This part is prepopulated by the ECB based on metrics produced in the context of its annual IT Risk Questionnaire and Supervisory Data Quality assessment: therefore, no additional burden on the reporting entity.** | **The institution is requested to provide feedback on the issues identified and the actions taken to address such issues.** |

**IT risk self-assessed indicators**

**e.g. IT data integrity, Data Quality Maturity level**

**Is the data of sufficient quality to support and inform supervisory decisions?**

**Completeness:** is all expected information available?

**Accuracy i**s the information compliant with the validation rules?

**Punctuality** Was it reported on time?

**Reliability** Were values significantly revised without a clear explanation?

**Monitoring - How promptly were the issues solved?**

**% of issues solved completeness / accuracy**

**Benchmarking - How does the institution perform in data quality compared to other institutions?**

**Data Quality Indicator / Ranking**

**Questions**

**Underlying causes** for the completeness/accuracy/punctuality/reliability issues.

**Mitigation/remediation plans** in place to address the quality issues.

**Extent of manual steps** in the reporting process.

**Describe** data governance framework

**Timeliness** to produce main risk reports

**Use of data quality indicators** on internal risk data

**Acknowledgement of issues**

**C-level executive sign-off** on management body responsibility to ensure data quality and on existence of appropriate verification measures aimed at cross-checking data

Management report on data governance and data quality
Indicators from the annual IT risk self-assessment questionnaire

ECB
Banking Supervision
ECB_Supervisory.Statistics@ecb.europa.eu
bcbs239@ecb.europa.eu

Management report on data governance and data quality
Supervisory data quality summary

ECB
Banking Supervision
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bcbs239@ecb.europa.eu

**Questions from the IT risk self-assessment questionnaire**

| | Bank value | | SSM average | | Peer group average | |
|---|---|---|---|---|---|---|
| | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 |
| Self-assessment score for IT data integrity risk level | 2.0 | 2.0 | 2.5 | 2.6 | 2.1 | 2.3 |
| Self-assessment score for data quality level maturity level (Risk Control) | 2.0 | 3.0 | 2.6 | 2.5 | 2.7 | 3.0 |
| Self-assessment score for data architecture model maturity level (Risk Control) | 3.0 | 3.0 | 2.6 | 2.6 | 2.9 | 2.9 |
| Nr. of end user computing applications (EUC) [1] | 3,578 | 3,058 | 741 | 838 | 1,223 | 1,338 |
| Nr. of cases of incorrect submissions in the supervisory reporting [2] | 360 | 296 | 32 | 39 | 56 | 68 |
| Nr. of incidents leading to significant invalid data modifications [3] | 5 | 5 | - | - | - | - |
| Nr. of critical findings related to IT data integrity are open for more than a year [4] | 0 | 0 | - | - | - | - |

| | Bank answer | | SSM % yes | | Peer group % yes | |
|---|---|---|---|---|---|---|
| | 2020 | 2021 | 2020 | 2021 | 2020 | 2021 |
| Roles and responsibilities regarding data quality are clearly defined | Yes | Yes | 78.1% | 81.1% | 70.0% | 73.3% |
| Data quality management procedures also apply to end user computing applications (EUC) [5] | Yes | Yes | 49.1% | 51.4% | 33.3% | 36.7% |
| The supervised entity has defined and documented its data architecture, data models and data flows, and validated them with relevant business and IT stakeholders [6] | Yes | Yes | 89.5% | 91.9% | 90.0% | 93.3% |

**Data Quality Indicator**

| | | 2021 Q2 | 2021 Q3 | 2021 Q4 | 2022 Q1 | 2022 Q2 |
|---|---|---|---|---|---|---|
| Score | DQI score | 3 | 2 | 3 | 2 | 3 |
| Ranking | Ranking across peer group | 6 | 4 | 10 | 7 | 11 |
| | Total nr. of institutions | 14 | 14 | 14 | 14 | 14 |
| | Ranking accross SSM institutions | 27 | 54 | 44 | 63 | 25 |
| | Total nr. of institutions | 117 | 116 | 111 | 112 | 111 |

**Data Quality Assessment**

*Compliance*

| | | 2021 Q2 | 2021 Q3 | 2021 Q4 | 2022 Q1 | 2022 Q2 |
|---|---|---|---|---|---|---|
| Completeness | % of missing templates | 0.0% | 0.0% | 0.0% | 0.8% | 6.0% |
| Accuracy | Nr. of validation rules failing | 5 | 0 | 3 | 0 | 1 |
| | Peer group average | 7.3 | 2.7 | 5.0 | 0.7 | 2.0 |
| Punctuality | % of missing modules | 0.0% | 0.0% | 0.0% | 0.0% | 1.0% |

*Monitoring*

| | | 2021 Q2 | 2021 Q3 | 2021 Q4 | 2022 Q1 | 2022 Q2 |
|---|---|---|---|---|---|---|
| Completeness | % of unsolved issues completeness | 100.0% | 100.0% | 100.0% | 100.0% | 0.0% |
| Accuracy | % of unsolved issues accuracy | 0.0% | | 0.0% | | 100.0% |
| Reliability | Nr. of resubmitted modules | 15 | 6 | 15 | 8 | 1 |
| | Nr. of expected modules | 8 | 8 | 8 | 8 | 8 |

Example of pre-populated template
(non exhaustive)

# 2. Management report on data governance and data quality
## Preliminary observations

## Methodological approach

- o Analysis of the root causes behind data quality issues (i.e. Q1 to Q4)

- o Further assessment of questions related to compliance with BCBS239 principles
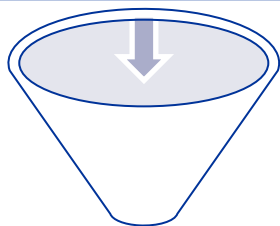
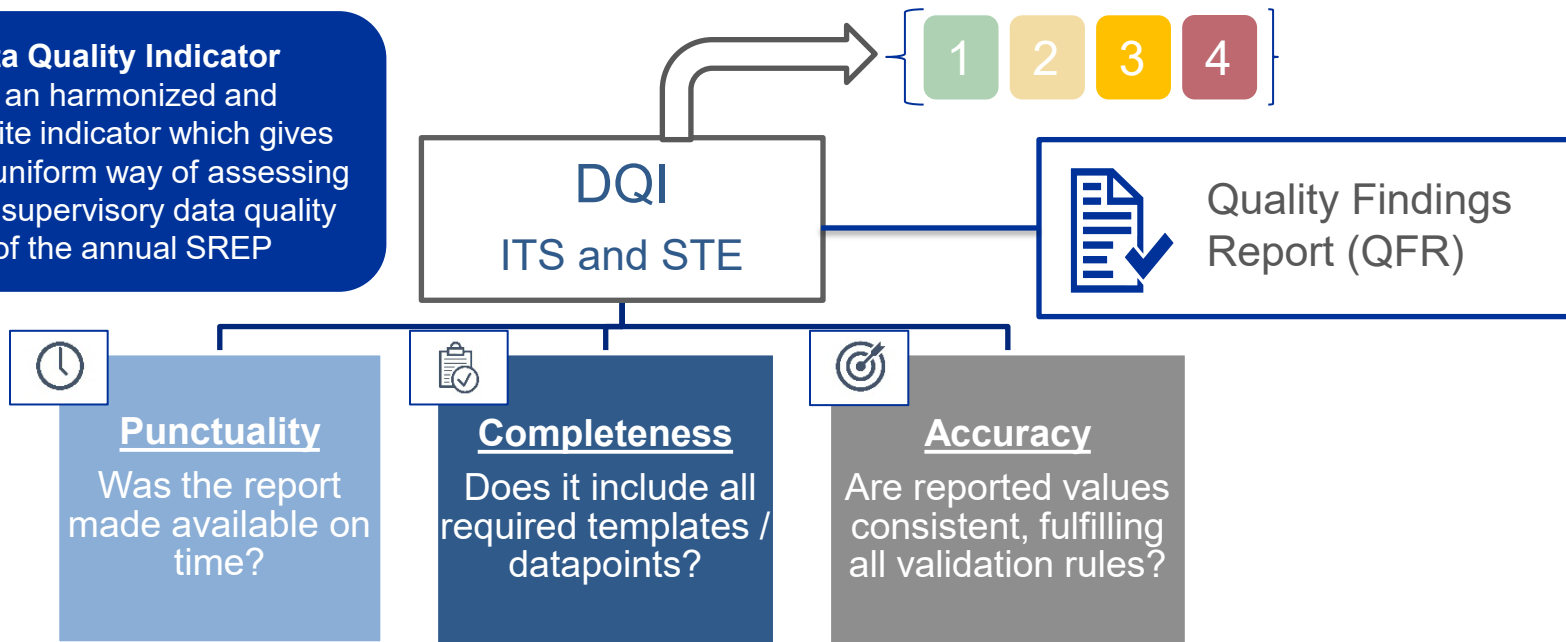**Analysis feeds into the 2023 RDARR SREP scores**

## Preliminary findings for the JST

⚠ Issues attributable to **software providers/IT systems** have severely impacted the reliability and the completeness of the data

⚠ Recurrent **operational/human error** causing numerous accuracy issues often leading to failing EBA validation rules/EGDQ checks

⚠ Recurrent misinterpretation of the regulation, raising doubt on the ability of some entities to provide meaningful data

⚠ Some banks lack transparency in terms of root cause behind the data quality issues identified

# 3. ECB BS Data Quality – DQI

The **Data Quality Indicator** (DQI) is an harmonized and composite indicator which gives JSTs a uniform way of assessing entities' supervisory data quality as part of the annual SREP

| 1 | 2 | 3 | 4 |

## DQI
### ITS and STE

Quality Findings Report (QFR)

**Punctuality**
Was the report made available on time?

**Completeness**
Does it include all required templates / datapoints?

**Accuracy**
Are reported values consistent, fulfilling all validation rules?

DQI will be shared consistently with all significant supervised entities via ASTRA in the upcoming months

# The ECB Data Quality Framework – Process changes

## Immediate forwarding of supervisory reports by NCAs to ECB

**Before:**

Feedback → Feedback → Feedback

**Bank** → **NCA** → XBRL → ...

ITS remittance date (**T**)

Up to 10 ...

...pliance and scores
...e data available **at T+10**

**Now:**

Feedback

... XBRL ... **ECB** XBRL **EBA**

**Immediate**

The ECB assesses compliance and scores
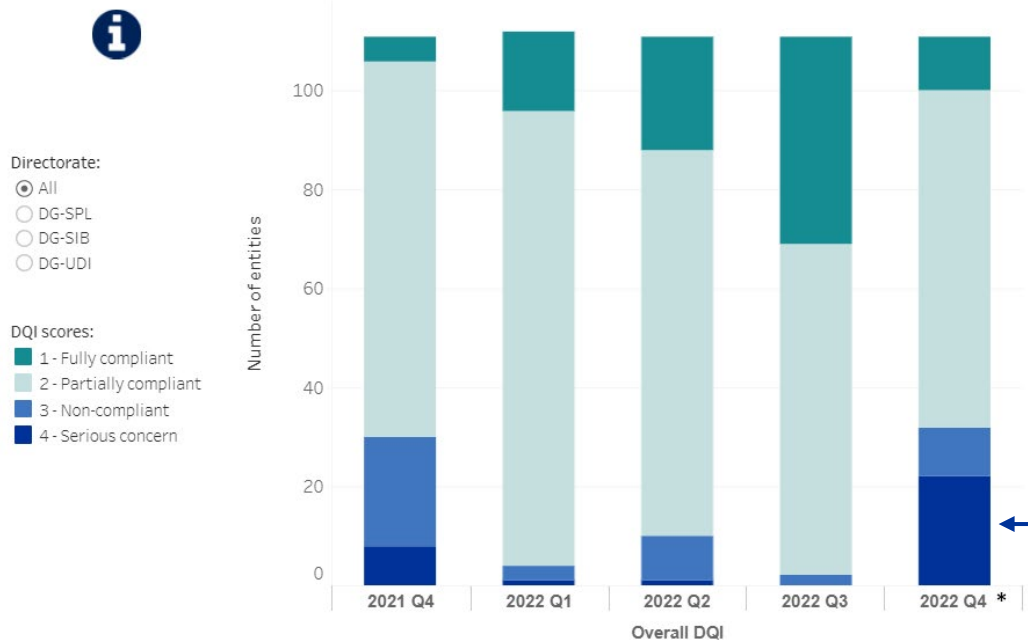banks based on the data available **at T**

*It is the bank's responsibility to submit 100% accurate and complete supervisory data on time*

# 3. ECB BS Data Quality
## Impact on the DQI of immediate forwarding by NCAs



Data Quality Indicator distribution (includes ITS and STE data)

Directorate:
- ◉ All
- ○ DG-SPL
- ○ DG-SIB
- ○ DG-UDI

DQI scores:
- 🟩 1 - Fully compliant
- 🟩 2 - Partially compliant
- 🟦 3 - Non-compliant
- 🟦 4 - Serious concern

Number of entities

Overall DQI

Average **% of missing and delayed reports** across all institutions notably increased to 4.75% from values between 0.1% and 0.2% in previous reference quarters

Increase in the share of banks with a **DQI score** of 4 (serious concerns)

*The DQI score up to 2022 Q3 is based on the data quality assessment carried out at the ECB remittance date (ITS remittance date +10). From 2022 Q4 onwards, the DQI score is based on the ITS remittance date. Please note that the DQI distribution for 2022 Q4 is still preliminary and may be subject to changes as a result of feedback received from supervised entities and national competent authorities.

# Preliminary findings

- The new process suffered a number of "**teething problems**" at the start of the implementation of the immediate forwarding.

- Implementation of the TFHSA principles still **differs from one NCA to another**… For instance:
  - Availability of the systems
  - Controls of the reports at reception
  - Tests environments
  - Other smaller differences related to the language of transmission

- From an **supervisory analysis perspective**, changes are paramount:
  - Compliance can be checked at the regulatory remittance dates
  - Analysis of "all files" and resubmissions gives precious input for JSTs and horizontal functions

Thank you