



EUROPEAN CENTRAL BANK

BANKING SUPERVISION

Supervisory Data: ECB Management Report and Data Quality matters

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Item 3.2
Dialogue with the banking industry on ESCB statistics

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	Main assessments
<p>Banks' internal risk reporting</p> <ul style="list-style-type: none"> • All material risk reports and indicators for banks' decision making • Key risk models • Reporting on data quality 	<p>On site inspections</p> <ul style="list-style-type: none"> • Dedicated methodology • Targeted DQ Management and BCBS239 inspections • DQ assessment also covered in other non-dedicated missions
<p>Supervisory reporting</p> <ul style="list-style-type: none"> • Regular FINREP/COREP reporting • Supervisory stress tests • Pillar 3 reports • Other thematic or ad hoc data requests (e.g., Covid-19) 	<p>Ongoing, off site supervision</p> <ul style="list-style-type: none"> • Thematic review 2016/17 (incl. fire drills, benchmarking) • Expectations published in 2019 • Integrated in annual risk reviews (SREP) • International collaboration
<p>Financial reporting</p> <ul style="list-style-type: none"> • Risk/finance reconciliation • Financial statement's analysis 	<p>Banking Supervision Data Division in DG Statistics</p> <ul style="list-style-type: none"> • Established data quality reporting since 2017 • Escalation and follow-up process • 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

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.

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 is 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

QUESTIONNAIRE

The institution is requested to provide feedback on the issues identified and the actions taken to address such issues.

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

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 ⁵	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 across peer group	6	4	10	7	11
Ranking	Total nr. of institutions	14	14	14	14	14
	Ranking across SSM institutions	27	54	44	63	25
	Total nr. of institutions	117	116	111	112	111

Data Quality Assessment

		2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2
Compliance						
Completeness	% of missing templates	0.0%	0.0%	0.0%	0.8%	6.0%
	Nr. of validation rules failing	5	0	3	0	1
Accuracy	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						
Completeness	% of unsolved issues completeness	100.0%	100.0%	100.0%	100.0%	0.0%
	% 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

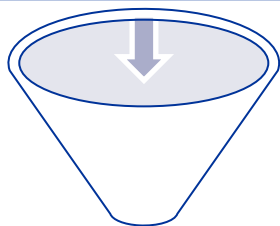
Example of pre-populated template
(non exhaustive)

2. Management report on data governance and data quality

Preliminary observations





Methodological approach

- Analysis of the root causes behind data quality issues (i.e. Q1 to Q4)
- Further assessment of questions related to compliance with BCBS239 principles



Analysis feeds into the
2023 RDARR SREP scores

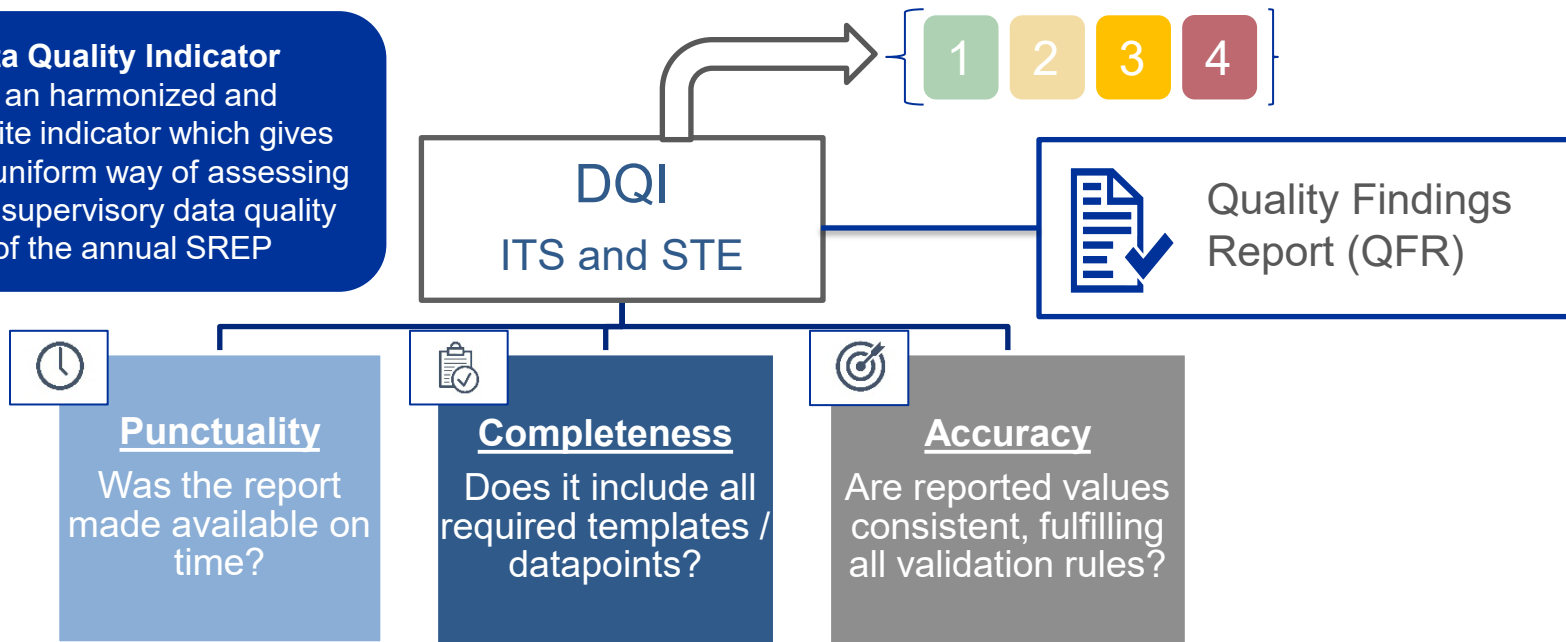
Preliminary findings for the JST

-  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



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 the ECB

Before:



Now:

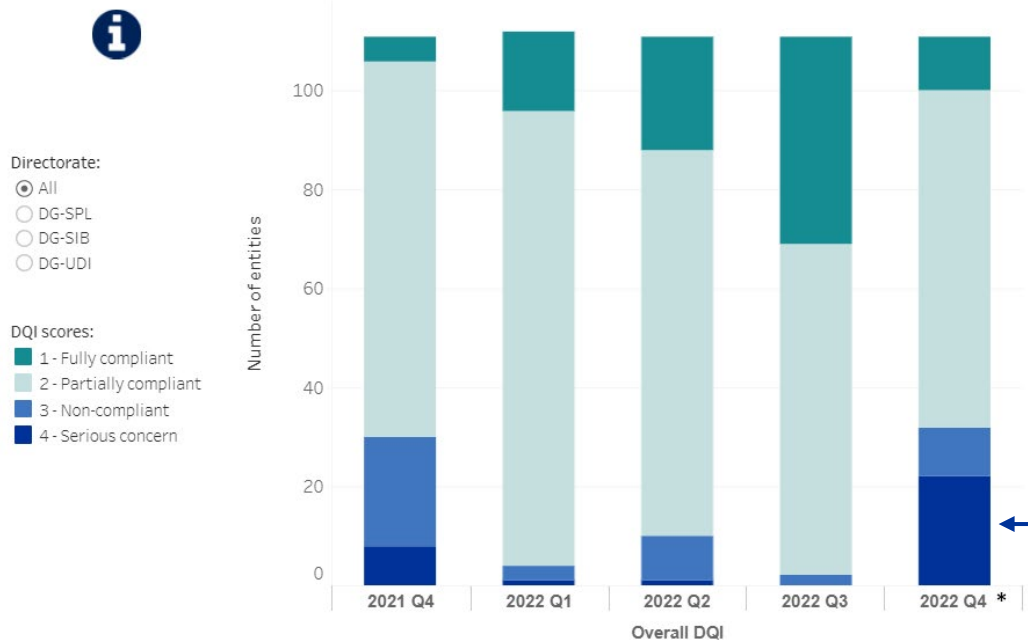


It is the bank's responsibility to submit 100% accurate and complete supervisory data on time

3. ECB BS Data Quality

Impact on the DQI of immediate forwarding by NCAs

Data Quality Indicator distribution (includes ITS and STE data)



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
