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Regulatory reporting and Data Quality: the new paradigm

30th May 2019

Welcome

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EUROPEAN CENTRAL BANK

BANKING SUPERVISION

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DG Statistics

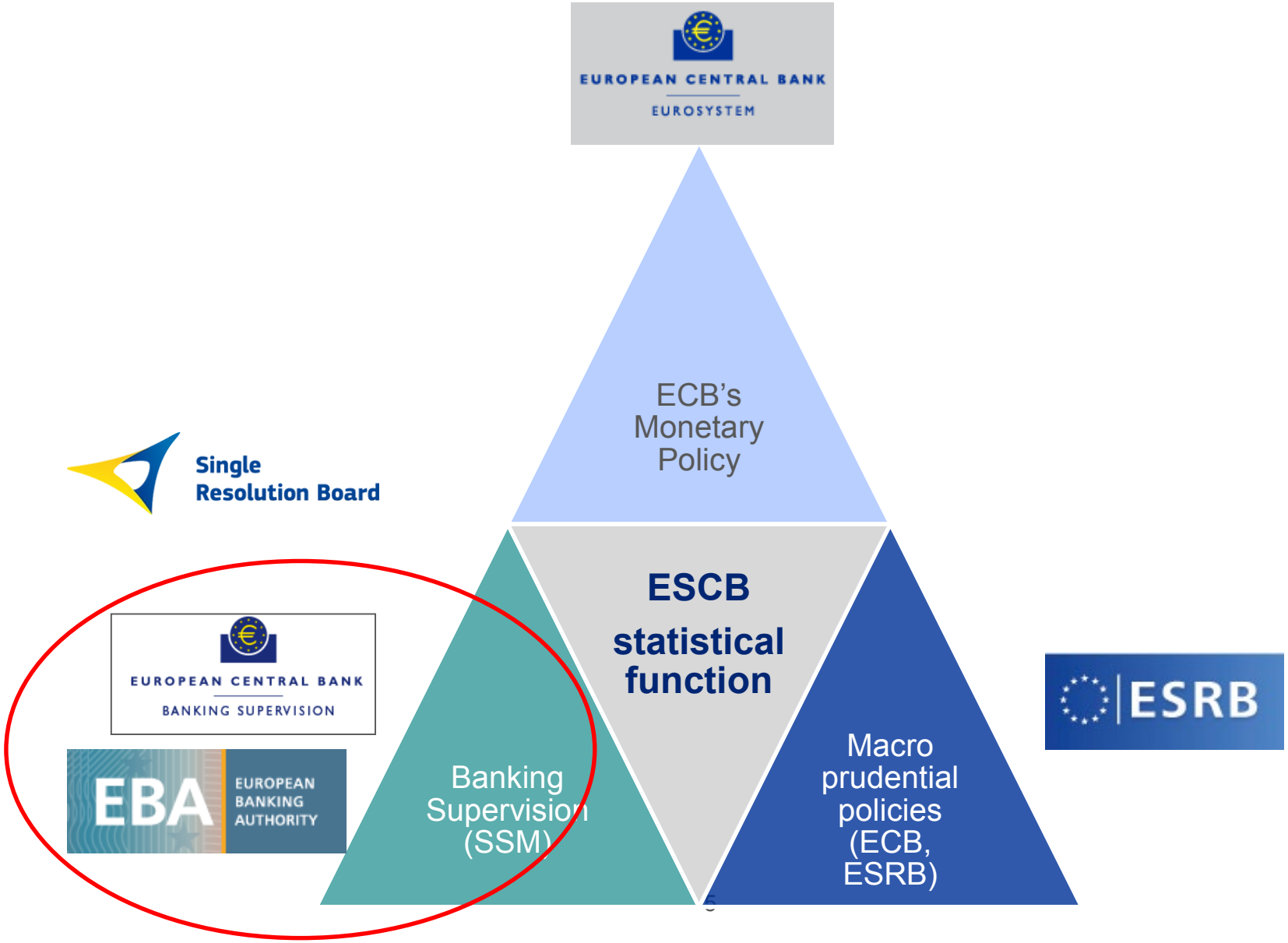
Quality of Supervisory Data Submissions: ECB Perspective

GRANT THORNTON EVENT

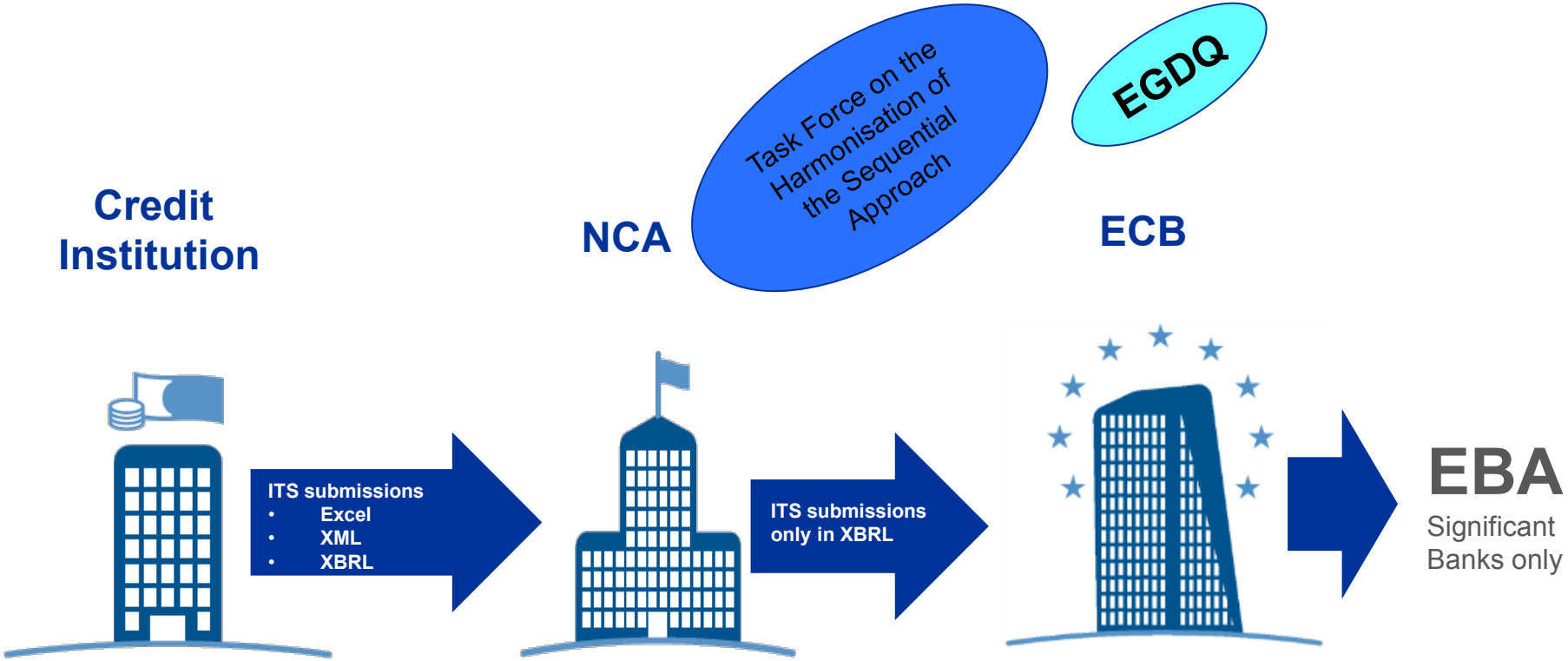
30 May 2019, Dublin

Topics covered

1. Role of ECB Statistics Directorate and the Sequential Approach
2. BCBS 239 and link to ECB's data quality assessment framework
3. Providing feedback to individual banks and the public: update
4. Enforcement measures
5. Future enhancement to Data Quality Assessment


EUROPEAN CENTRAL BANK
EUROSYSTEM
ECB's Monetary Policy
Single Resolution Board
ESCB
statistical function
EUROPEAN CENTRAL BANK
BANKING SUPERVISION
EBA
EUROPEAN BANKING AUTHORITY
Banking Supervision (SSM)
Macro prudential policies (ECB, ESRB)
ESRB

The sequential approach



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

Task Force on the Harmonisation of the Sequential Approach (TFHSA)

Background

The ECB Working Group on Supervisory Statistics has been mandated to work on the **harmonisation of national practices** to establish a level playing field for the data quality assessment of the reporting institutions.

The **objectives** of the TFHSA are to:

- Further analysis of the national best practices
- Definition of a minimum common set of practices to be implemented by NCAs and ECB
- Establishing a level playing field for SSM reporting institutions in terms of data collection and data quality assessment

Work Streams

- **WS1: Collection of supervisory ITS data from banks to NCAs**
- **WS2: Supervisory data quality management and interaction with supervised entities**
- **WS3: Involvement of external auditors and on-site inspections**
- WS4: Interaction and engagement with JSTs
- WS5: Submitting ITS data to the ECB
- WS6: Interaction with key stakeholders
- **WS7: Resubmissions**

BCBS 239 and Data Quality

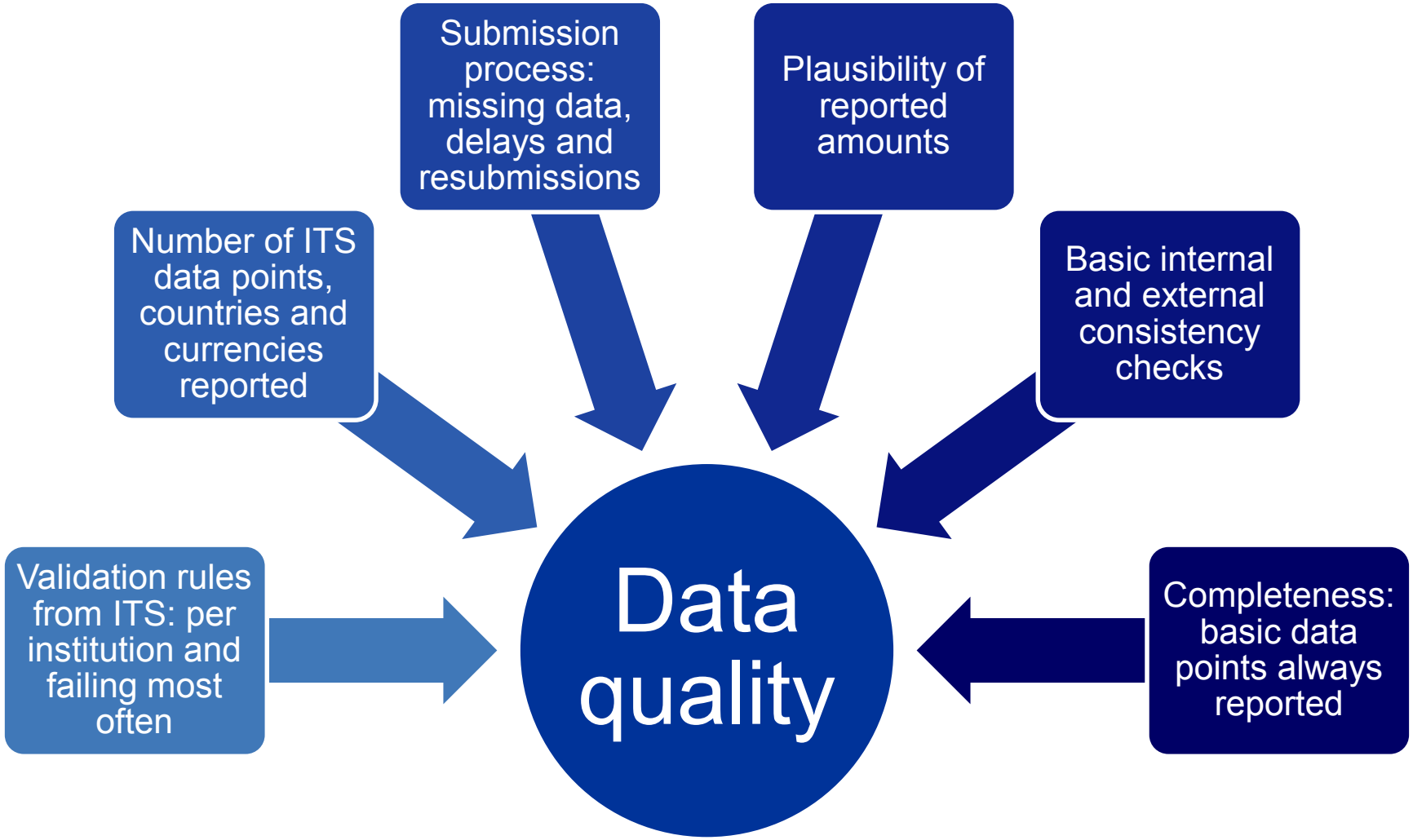
Governance and Infrastructure	Risk Data Aggregation Capabilities	Risk Reporting Practices	Regulatory Review
• Governance • Data Infrastructure & IT infrastructure	• Accuracy and integrity • Completeness • Timeliness • Adaptability	• Accuracy • Comprehensiveness • Clarity and usefulness • Frequency • Distribution	• Review • Remedial actions and supervisory measures • Home/host cooperation

ECB Banking Supervision Data Quality Framework

Scope of application!

Input to SREP!

Comprehensive approach to data quality



How is data quality assessed?

Hard checks

Punctuality

- Submission process: missing data, delays in reports

Accuracy

- Validation rules: per institution and failing most often

Completeness

- Mandatory templates and basic data points always reported

DQIs

Individual Dashboard

Soft checks

Stability

- Changes in number of data points reported focusing on countries and currencies reported

Plausibility

- Plausibility checks aim to detect outliers in the reported data.
- "Variance analysis"

Reliability

- "Resubmission analysis".
- Analysis of the difference between preliminary and revised reported values

Data Quality – Overview Q4 2017 – Q4 2018 (1)

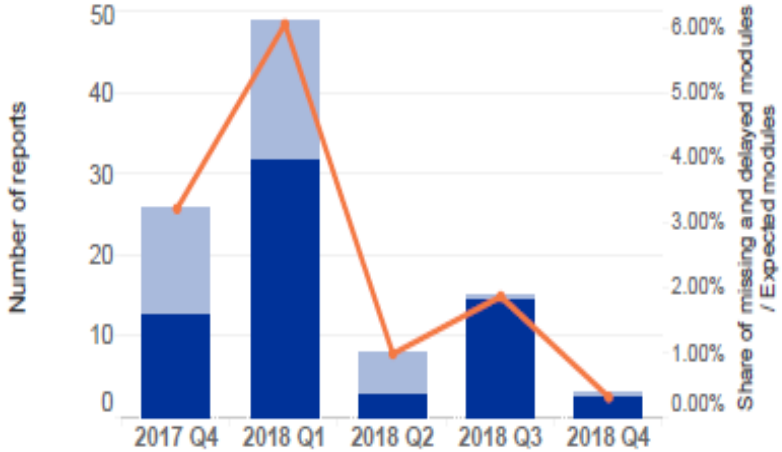
At a glance

		2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4
Information on submissions and punctuality	Number of reporting institutions	118	119	119	118	118
	Number of expected reports	808	809	809	802	920
	% of missing and delayed reports	3.22 %	6.06 %	0.99 %	1.87 %	0.33 %
Completeness	% of missing templates	2.35 %	4.25 %	1.07 %	1.50 %	0.71 %
	% of missing data points	10.76 %	10.39 %	7.07 %	7.67 %	9.11 %
Accuracy	% of failing validation rules	0.01 %	0.40 %	0.21 %	0.07 %	0.11 %
	% of reporting institutions submitting reports with at least one failing validation rule	32.20 %	78.15 %	58.82 %	33.90 %	65.25 %
Supervisory reporting events			• Reporting framework v2.7 • IFRS9			• Reporting framework v2.8

Data Quality – Overview Q4 2017 – Q4 2018 (2)

Punctuality

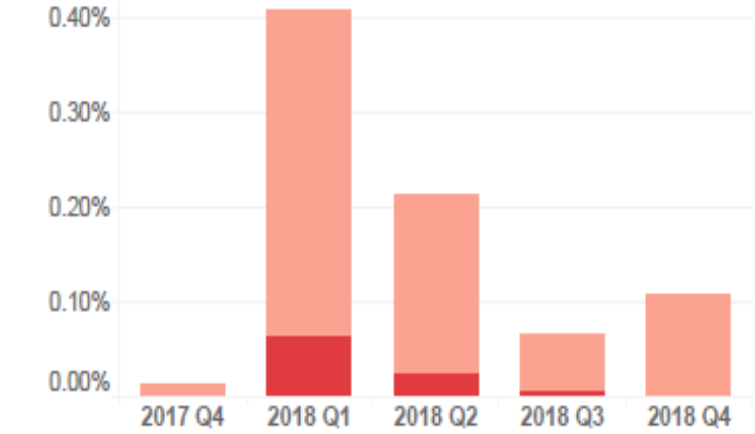
Number of missing and delayed reports



Delayed reports
Missing reports (rejected and not received)
Share of missing and delayed reports / Expected reports (rhs)

Accuracy

Percentage of failing validation rules



% of EBA non-blocking failing validation rules
% of EBA blocking failing validation rules

	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4
Supervisory reporting events		• Reporting framework v2.7 • IFRS9			• Reporting framework v2.8

Data Quality – Overview Q4 2017 – Q4 2018 (3)

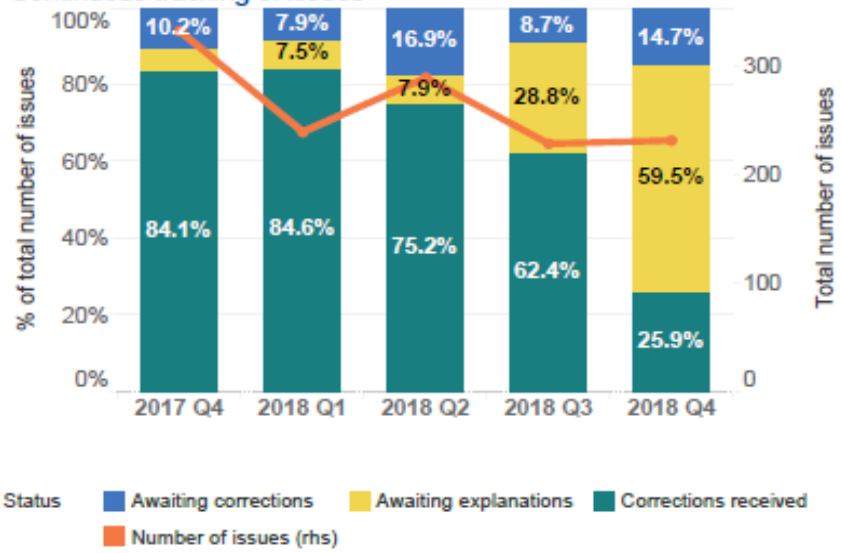
Completeness

Percentage of submitted templates, by report

Report	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4
AE	96.5%	97.6%	99.3%	98.3%	99.5%
ALM	100.0%	99.1%	100.0%	100.0%	100.0%
COREP	96.7%	95.5%	98.3%	97.8%	
COREP LR					99.1%
COREP OF					99.2%
FINREP	97.2%	94.2%	98.8%	98.6%	99.2%
LCR	100.0%	99.1%	100.0%	100.0%	100.0%
LE	99.1%	97.0%	99.9%	98.3%	99.5%
NSFR	99.1%	97.1%	99.1%	97.4%	99.1%
Total	**97.7%**	**95.7%**	**98.9%**	**98.5%**	**99.3%**

Plausibility

Continuous tracking of issues*



*Confirmed reporting errors or excessive variations in the value of submitted data points that are pending investigation by reporting institutions. This chart does not include those issues (excessive variations) that have been explained by institutions.

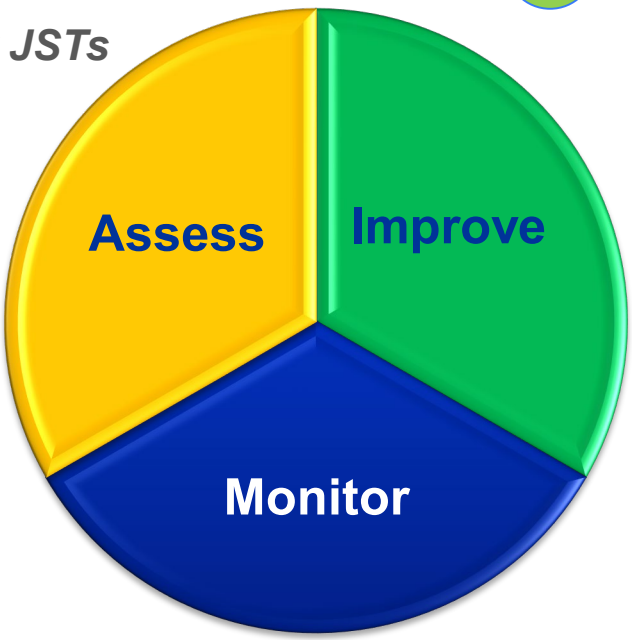
The analysis included in the aggregated Data Quality Tables is carried out, for each reference period, as of one working day after the respective date for submission of reports to the ECB ("remittance date"). The remittance dates are defined under Article 3 of Decision (EU) 2017/1493 of the European Central Bank of 3 August 2017 (ECB/2017/23). The metrics for the plausibility dimension are computed, for all reference periods, twenty-five working days after the ECB remittance date for the most recent reference period.

Broad set of tools for supervisors to tackle data quality

1 *Assessment performed by JSTs*

SREP Element 2

- Phase 2 RC Questions
- Phase 3 data quality indicators
- BCBS 239
- TRIM



2 *Improvement is joined effort between ECB DG Statistics and ECB Banking Supervision*

- Supervisory data issues tracker tool
- Thematic analyses of selected ITS reports
- Feedback to bank / Supervisory dialogue
- Escalation process

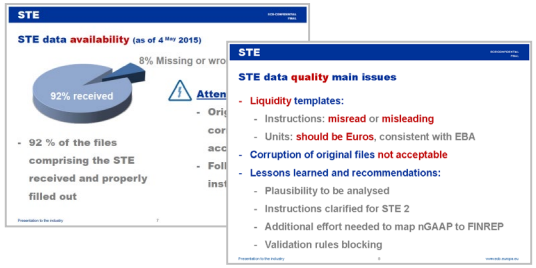
3 *On-going automatic monitoring by DG-S/SUP*

- Quarterly data quality reports
- Data quality dashboard per institution

Improving data quality –

✓ Feedback to bank / Supervisory dialogue

1. General feedback with horizontal perspective: regular discussion with the industry on data quality necessary to raise awareness.



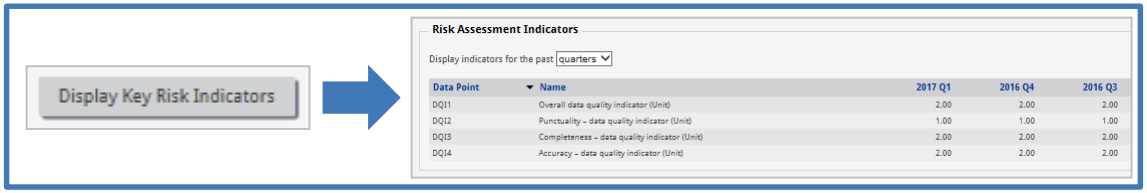
2. DG Statistics provides feedback to banks via NCAs (data quality reports and results of validation checks for ITS and STE data).
3. ITS data quality is shared at aggregated level with the industry in a quarterly basis via the publication of Banking Statistics.
4. Direct feedback to banks given in **Supervisory dialogues as part of the SREP communication.**

Supervisory Dialogue

Why the Data Quality Indicators (DQI)?

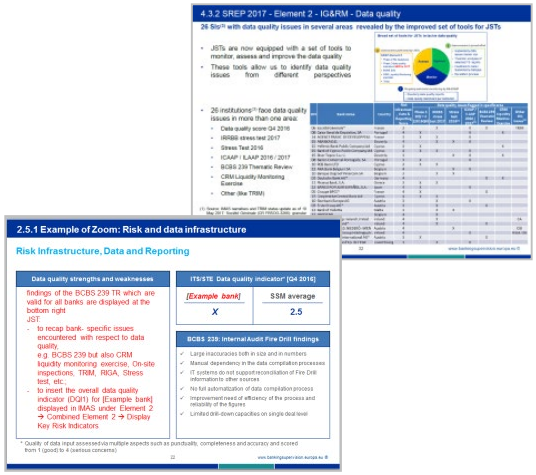
- ✓ JSTs' SREP Element 2 assessment in sub-category "Risk Infrastructure, Data & Reporting".

IMAS Screenshots



Data Point	Name	2017 Q1	2016 Q4	2016 Q3
DQI1	Overall data quality indicator (Unit)	2.00	2.00	2.00
DQI2	Punctuality – data quality indicator (Unit)	1.00	1.00	1.00
DQI3	Completeness – data quality indicator (Unit)	2.00	2.00	2.00
DQI4	Accuracy – data quality indicator (Unit)	2.00	2.00	2.00

- ✓ SREP horizontal analyses.



- ✓ Facilitate supervisory dialogue with the supervised entity.

Why the Individual Dashboard?

- ✓ Allow JSTs to have all key data quality figures available at a glance, with the possibility to drill down.

- ✓ **As a tool for communication: to help JSTs set the framework for the dialogue with the supervised entity.**

Examples

Overall view | ITS Score breakdown | STE Score breakdown

European Central Bank, DG-Statistics, Banking Supervision Data Division

Overall view | ITS score breakdown | STE score breakdown

Entity

Name

Select one reported period:
- 2017 Q2
- 2017 Q3
- 2017 Q4
- 2018 Q1
- 2018 Q2

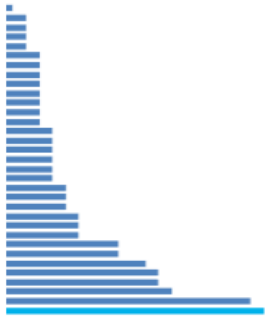
Select a consolidation level:
- Consolidated

Significance ID	Accounting framework	Peer group	Cut-off date ITS
SI	IFRS	Diversified lender	28/08/2018

Country	Number of peers	Cut-off date STE
	33	31/08/2018 23:59:59

Link to DGMS4/MSD SSM Quarterly Risk Figures Dashboard

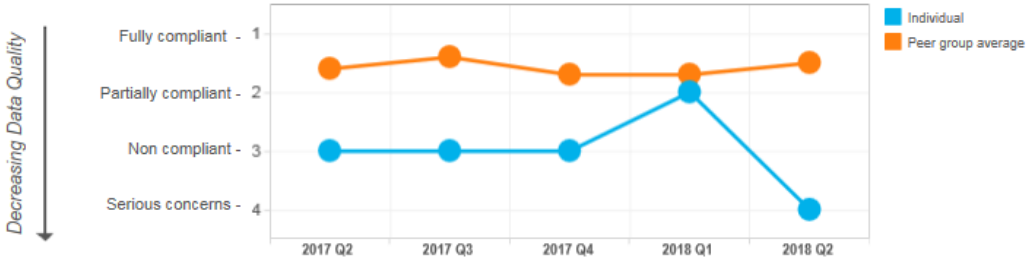
Overall DQI and distribution within peer group



DQI - Breakdown

Quality Dimension	COREP	LE	LCR	NSFR	FINREP	AE	ALM	STE	Dimension wise DQI	Dimension Ranking
Punctuality	4	1	1	1	1	1	1	1	4	7
Completeness	4	1	2	3	3	2	2	2	3	13
Accuracy	4	1	1	1	1	1	1	1	2	4
Module-wise DQI	*4*	*1*	*2*	*2*	*2*	*2*	*2*	*2*		
Peer group average	*2*	*1*	*2*	*2*	*2*	*2*	*2*	*2*		
Module ranking	*12*	*1*	*3*	*4*	*4*	*2*	*3*	*2*		

Overall DQI and Ranking over time



Examples

Overall view | ITS Score breakdown | STE Score breakdown

European Central Bank, DG-Statistics, Banking Supervision Data Division

Overall view | ITS score breakdown | STE score breakdown | 4

Entity

Name

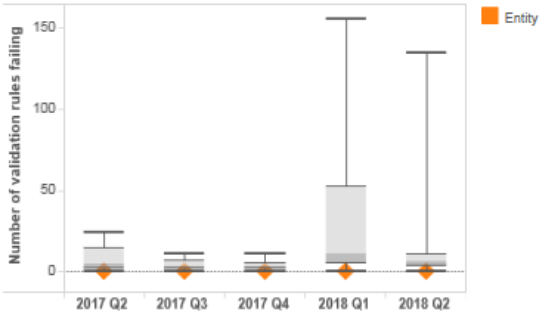
Select one reported period:
- 2017 Q2
- 2017 Q3
- 2017 Q4
- 2018 Q1
- 2018 Q2

Select a consolidation level:
- Consolidated

Significance ID	Accounting framework	Peer group	Cut-off date ITS
SI	IFRS	Diversified lender	28/08/2018

Country	Number of peers	Cut-off date STE
	33	31/08/2018 23:59:59

Accuracy over time



Accuracy

	COREP	LE	LCR	NSFR	FINREP	AE	ALM
Validation rules failing	0	0	0	0	0	0	0
peer-group average	7.7	0.0	0.0	0.0	5.0	0.3	0.1
of which: blocking	0	0	0	0	0	0	0
peer-group average	1.2	0.0	0.0	0.0	1.0	0.0	0.0
Data points failing	0	0	0	0	0	0	0
peer-group average	197.2	0.0	0.0	0.0	63.7	1.5	0.6
Ras impact				0	0	0	
peer-group average	3.5			0.0	0.3	0.1	

Punctuality

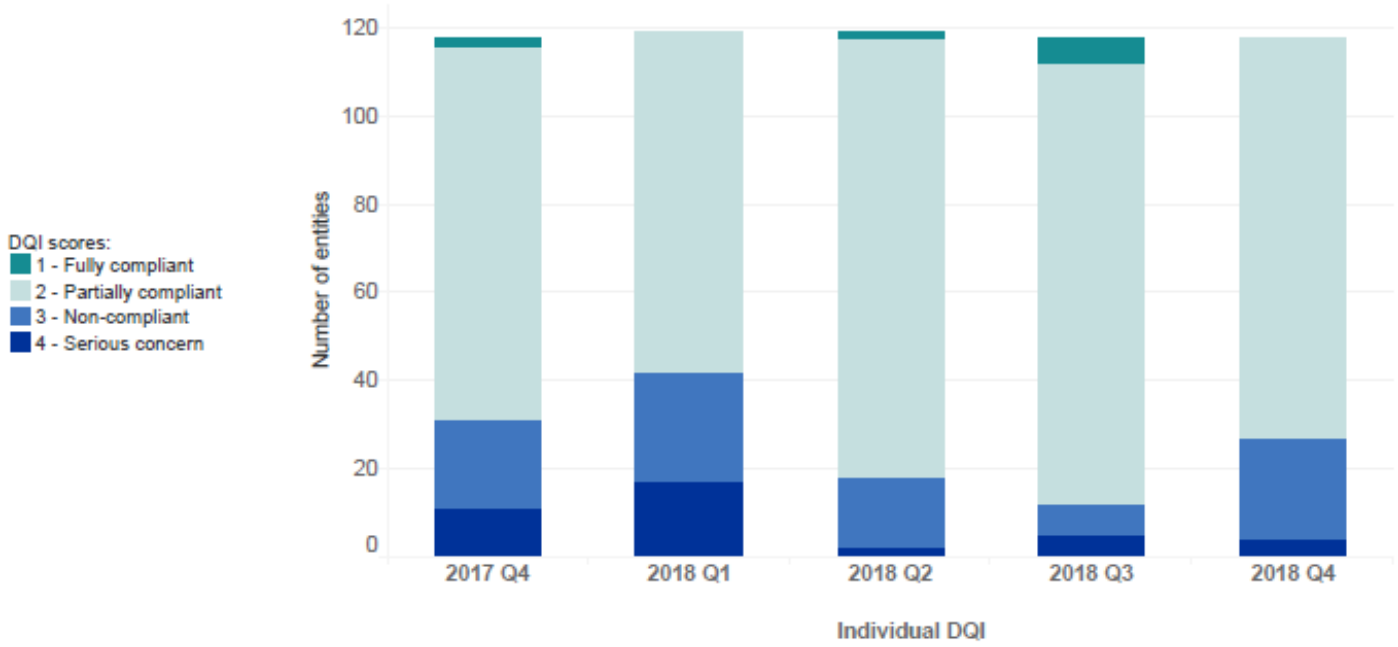
	COREP	LE	LCR	NSFR	FINREP	AE	ALM
Delay With Errors (days)	1	0	0	0	0	0	0
peer-group average	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Delay Fully Valid (days)	1	0	0	0	0	0	0
peer-group average	0.7	0.0	0.0	0.0	0.3	0.1	2.0
Rejections		0	1	0	0	0	0
Accepted Submissions		1	1	1	1	1	2

Completeness

	COREP	LE	LCR	NSFR	FINREP	AE	ALM
Missing templates	19	0	0	0	1	0	0
peer-group average	1.0	0.0	0.0	0.0	0.8	0.0	0.0
Missing Data Points	26	0	1	4	3	1	1
peer-group average	1.4	0.0	1.3	1.5	2.5	1.3	1.3
Missing data points involved in RAS	10	0	0	0	0	0	0

Data Quality Indicators – Overview Q4 2017 – Q4 2018

Individual Data Quality Indicator (DQI) distribution



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Details on the data quality framework and the data quality indicators are included in the *Explanatory note on aggregated data quality tables*, available under the section "More detailed information on published supervisory data – Methodology and classification" of the webpage.

Data Quality Products available to supervisors

In production

Data Quality Assessment

Produced for each reference period

Shared with NCAs and ECB Banking Supervision

For information to the Supervisory Board members

In production

Data Quality Indicators in IMAS

Based on internal consistency of data

In production

Individual dashboard per institution

With a rating for each institution

In production

Report on breaches

Produced for each reference period

Overview of non compliance with regulatory requirements

In production

Thematic analysis of certain areas of the ITS

Together with volunteers from Expert Group on Data Quality (EGDQ) ; Outcome: additional data quality checks

In production

Data Quality Findings

Produced for each reference period

Serves as basis for Data Quality Assessment

Shared with NCAs and ECB Banking Supervision

In production

Data Quality Tracking Tool

Facilitates end-users in ECB Banking Supervision raise ad-hoc data quality issues.

The Escalation Process

What is it?

The Escalation Process constitutes one workflow within the overall framework for data monitoring and quality assessments that established jointly by the ECB's Banking Supervision Data Division (DG-S/SUP) and ECB Banking Supervision as part of its responsibilities for managing the supervisory data of significant institutions (banks) under SSM supervision

Current scope and method

"List of banks" identified for follow-up based on:

- **Significant** supervised banks at **highest** level of consolidation
- **Quarterly** reports of ITS supervisory data
- Three **quality dimensions** of: Punctuality, Accuracy, Completeness
- **Expert Judgement** alongside quantitative findings

"Preparation phase" precedes the formal start of the process

- NCAs notified that specific banks potentially fall under scope of **an Escalation Process,** and included in communication at each stage of the process
- Consultation with JSTs on decisions to escalate and in drafting of Operational Acts and ECB Decision

Possible actions

- **Letter to CFO, letter to CEO, referral with draft SB decision** in order of escalation

Future enhancements to Data Quality Assessment

- **Continuous follow up** of data quality issues → **Monitoring**
- **Include in the assessment all "hard checks"**, not only the automatic (XBRL-based) EBA validation rules:
  - Include non-XBRL validation rules
  - Include published rules developed by the ECB in cooperation with the NCAs (EGDQ hard checks)
- **Review of plausibility methodology - near completion**
- **Inclusion of metrics on re-submissions in the DQI**

QUESTIONS

Panel Discussion

- Patrick Hogan, Head of Supervisory Data Services Section, European Central Bank
- Oonagh Carroll, Director of Regulatory Reporting & Operations, Bank of Ireland
- Johnathan Duggan, Chief Data and Analytics Officer, AIB
- Chris Monks, Director, Grant Thornton
- Moderator: Gerard Moran, Associate Director, Grant Thornton

Closing remarks

Ciaran Rogers
Director
Grant Thornton

Thank you