



EUROPEAN CENTRAL BANK

BANKING SUPERVISION

Data Quality at the ECB: trends over the past year

Luis Suarez Tumi

Banking Supervision Data Division

Supervisory Reporting Conference

Frankfurt - 06 November 2018

European Central Bank, Frankfurt

Contents

1	Overview of Data Quality for Q1 2017 – Q1 2018
----------	---

2	Expert Group on Data Quality and deliverables
----------	--

3	Annex
----------	--------------

- **Analysis shows improvement from reporting institutions, but also the necessity of banks to be in a position to adopt to new taxonomies.**
- **Q2 2017 and Q1 2018 data shows a clear decrease in punctuality and accuracy following the introduction of the reporting frameworks v2.6 and v2.7 respectively.**
- **Reporting for Q2 2017 shows errors for 121 Significant institutions for validation errors on credit risk (including geographical breakdowns), capital adequacy and securitisations templates.**
- **For Q1 2018, Across modules, FINREP registered the lowest accepted fully valid ratio, representing around 50% of the errors occurred within all the modules;**
- ❑ It should be noted that v2.7 (for Q1, 2018) introduced changes in the structure of some credit risk templates due to the implementation of the new IFRS9 accounting standard, and experience has shown that data quality declines for a subsequent number of iterations as reporting entities gain experience with the new reporting requirements
- ❖ Resubmission analysis show that a high number of resubmissions impacted FINREP templates.

Introductory remarks: Data Quality Q1 2017–Q1 2018 *ITS at a glance*

At a glance

Select
the scope
of analysis

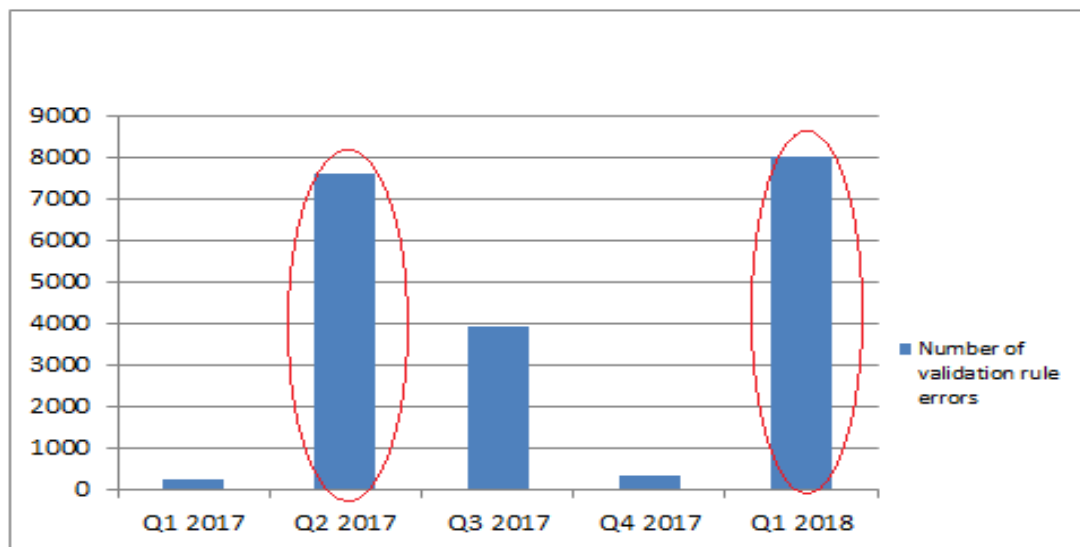
☒ ITS

☐ STE

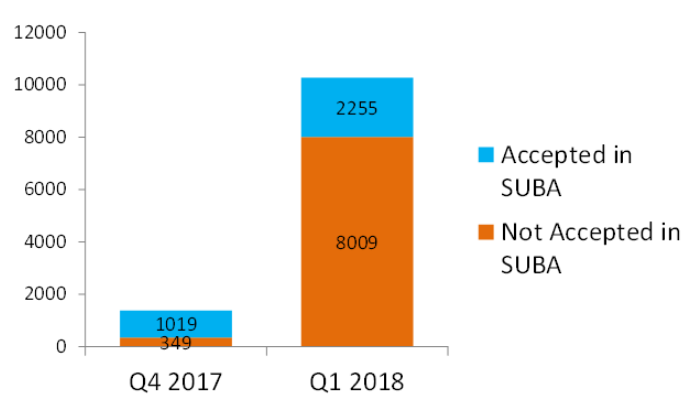
		2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1
Information on submissions and punctuality	Number of reporting institutions	124	122	119	118	120
	Number of expected reports	856	836	815	808	816
	% of missing and delayed reports	5.37 %	4.30 %	0.73 %	3.34 %	6.12 %
Completeness	% missing templates	3.37 %	3.06 %	0.56 %	2.34 %	4.26 %
	% of missing data points	14.45 %	13.82 %	12.20 %	12.74 %	10.23 %
Accuracy	% of failing validation rules	0.02 %	0.07 %	0.02 %	0.01 %	0.40 %
	% of reporting institutions submitting reports with at least one failing validation rule	20.97 %	60.66 %	33.61 %	33.90 %	80.00 %
Supervisory reporting events			• Reporting framework v2.6			• Reporting framework v2.7 • IFRS9

Overview of validation rules (cut-off date: ECB deadline)

Validation rule errors Q1 2017 – Q1 2018

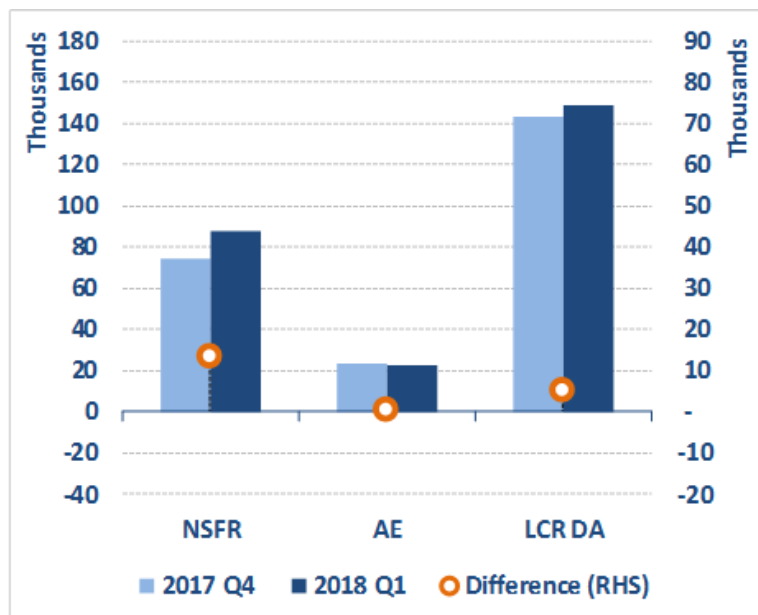
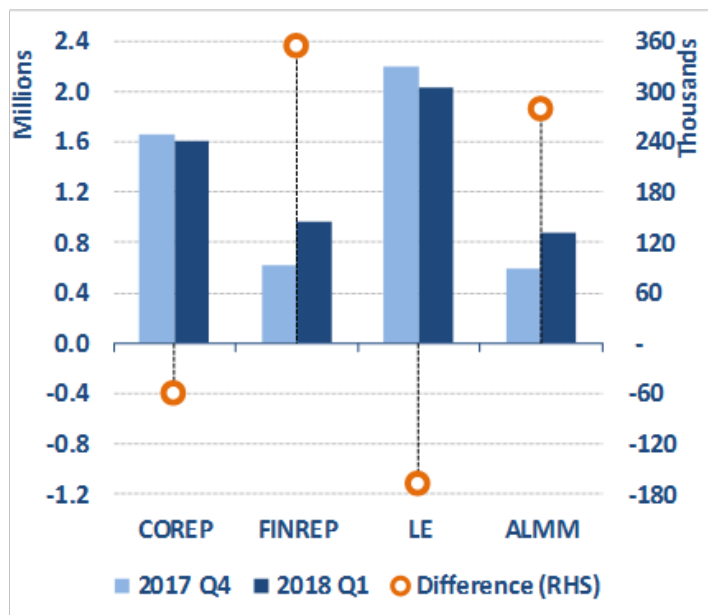


Number of errors at cut-off date



Soft checks: Stability (cut-off date: ECB deadline)

Number of data points reported Q4 2017 -Q1 2018



Business reasons

Reaching the thresholds for reporting geographical breakdowns

New financial instruments in the balance sheet

Disposal of a subsidiary (affectes the number of countries reported)

Soft checks: Completeness, Plausibility^(cut-off date: ECB deadline)

Completeness rate per modules

Module	Quarter				
	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018
COREP	94%	95%	94%	93%	92%
FINREP	87%	91%	91%	91%	88%
AE	78%	81%	84%	83%	87%
LCR	94%	92%	93%	95%	95%
NSFR	89%	87%	90%	92%	90%
ALMM	67%	67%	67%	73%	79%
Total Average	85%	89%	87%	88%	89%

Status of pending data quality issues from Q2 2017 to Q1 2018

Country	Missing explanations				Expected resubmissions			
	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2017	Q3 2017	Q4 2017	Q1 2018
1	0	0	1	0	1	10	1	6
2	1	0	0	0	4	0	2	0
3	23	23	2	20	0	0	2	0
4	1	13	0	2	2	0	7	6
5	0	0	0	0	0	5	0	1
6	0	0	0	1	0	0	0	10
7	0	0	0	0	0	0	2	1
8	3	37	2	44	7	17	10	5
9	0	0	0	0	0	0	0	2
10	0	0	0	0	1	0	0	3
11	0	0	0	4	0	0	22	4
12	0	0	0	0	4	0	1	1
13	0	0	0	0	0	0	0	4
14	0	0	0	0	0	1	0	7
15	0	0	0	2	4	0	1	6
16	0	0	6	0	4	0	12	7
17	0	0	0	0	2	0	1	0
18	0	0	0	0	0	1	0	0
19	0	0	0	0	3	0	0	0

The data used in the completeness table above comes from a set of pre-defined data points that are considered essential by supervisors to complete key supervisory tasks and should be reported by all institutions independent of their size, business model or country of origin. However, because of differences due to business models making some data points redundant for that entity, achieving 100% is not possible and completion rates over 80% are considered as satisfactory

Resubmissions

Highlights:

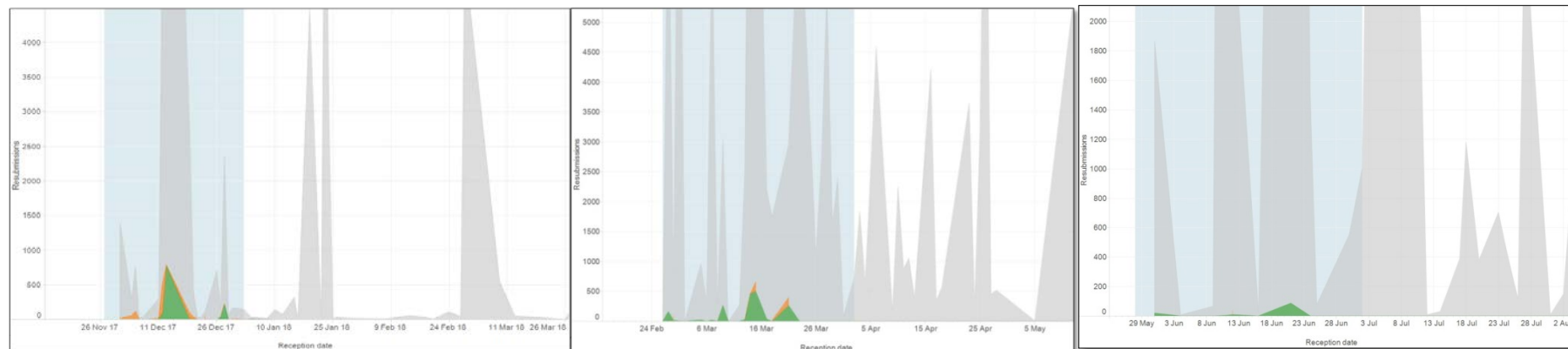
- High rates of resubmissions during the month subsequent to remittance deadline – no surprise.
- Following analysis with respect to materiality, ECB seeks reasons for resubmissions for a small number of cases (see green part of the chart below). For instance, for Q4 2017, ECB requested explanations for circa 10,800 data points resubmitted during the month after remittance date, accounting for 19% of the total number of resubmissions received.
- End-year data shows a higher number of resubmissions distributed across several weeks after remittance – not unexpected due to finalisation of end-year audits.
- Q1 2018 shows a number of resubmissions linked to the implementation of framework v2.7 (IFRS 9).

Resubmissions

Q3 2017

Q4 2017

Q1 2018



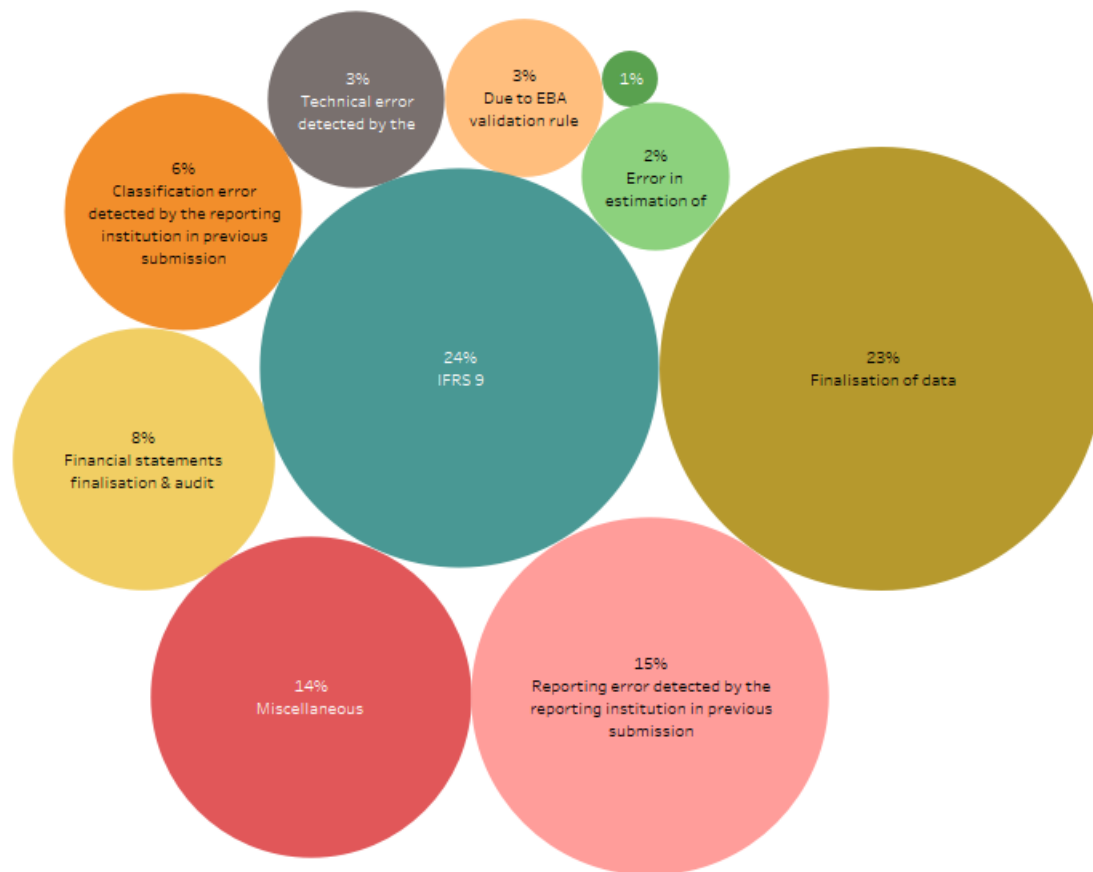
*Grey area represents all resubmissions received, i.e. showing any change in the value of a submitted data point.

*Green area represents explanations for resubmissions following ECB request for more information concerning new submissions.

Resubmissions: an example of type of answers received from institutions

Q1 2018 resubmissions

Reasons for resubmissions: high percentage cite: “finalisation of data”.
New reporting framework also accounts for high percentage of resubmissions



Institutions' comments by category

- IFRS 9
- Finalisation of data
- Reporting error detected by the reporting institution in previous submission
- Miscellaneous
- Financial statements finalisation & audit
- Classification error detected by the reporting institution in previous submission
- Technical error detected by the reporting institution in previous submission
- Due to EBA validation rule error
- Error in estimation of provisions
- Due to failed EGDQ check

* For the purpose of the chart the comments have been clustered in 13 categories.
Nonetheless detailed explanations are preferred as seen in next slide.

Resubmissions: best practice for received answers

Clear answer:

“Due to late adjustment for:

- (i) DTA Adjustment*
- (ii) Compensation*
- (iii) Pensions*

Example: *“Following the **finalization** of the annual planning process including detailed analysis of the legal entity break down of the plan, valuation adjustment to the deferred tax asset was recognized. This adjustment had a **consequential impact** on the Deductible Deferred Tax Liabilities associated with deferred tax assets that rely on future profitability*



Allows the supervisor to understand whether:

- a. Further resubmissions are expected
- b. If the results from a previous analysis by the line supervisor may need to be adapted to reflect the new data from the resubmission.

Unclear answer:

Example: *“A post-submission check-up of the initial report by the responsible accounting unit revealed an error in the **founding** mapping”.*



- a. Are the post-submission checks finalised?
- b. Should the supervisor consider the data final?
- c. Are other values impacted?

Less useful answer:

Examples: *“This figure was wrong, now it’s correct”*

“Time Lag”

“Due to revised data”



- a. Equivalent to no explanation

- ❑ Key contributory factor to decline in data quality as measured through “hard” checks was the introduction of reporting frameworks v2.6 and v2.7
- ❑ Version 2.6 triggered validation errors on credit risk (including geographical breakdowns), capital adequacy and securitisations templates.
- ❑ Version 2.7 also introduced changes in the structure of some credit risk templates due to the implementation of the new accounting standard IFRS9 and not unexpectedly reporting entities will take some time to become familiar with the new reporting requirements.

Key findings:

- Increase in the number of triggered errors when there is an introduction of a new taxonomy. As result Q2 2017 and Q1 2018 showed a decline in punctuality and accuracy compared to their respective previous quarters.
- Concerning Q1 2018, across modules, FINREP registered the lowest accepted fully valid ratio, representing around 50% of the errors occurred within all the modules due to new IFRS9 templates.
- Credit institutions showed improvement in Q3 2017 and also Q2 2018 (out of scope of this presentation), which indicates that banks have adapted somewhat to new reporting challenges.
- There are high rates of resubmissions during the month remittance deadline: “finalisation of data” is cited frequently.

Contents

1 Overview of Data Quality for Q1 2017 – Q1 2018

2 Expert Group on Data Quality and deliverables

3 Annex

Communicate the outcome of the work by the EGDQ

- EGDQ represents a **platform** to present and discuss **deliverables** of the SUP Division **in the field of data quality**. Participation from 12 NCAs and EBA;
- Participation also from industry reps for part of the meetings
- Outcome of the EGDQ work approved at ECB working group representing all NCAs in SSM
- Presentations to JSTs on data quality framework and results of data quality assessment

Discuss and agree on a set of data quality checks and controls

- A first set of checks approved in the course of 2017 has been **sent to EBA** with the aim to be included in upcoming taxonomies. Some of these checks have been were included in v2.8 of the reporting framework
- A set of EGDQ checks (49) has been **published** on the ECB Banking Supervision website in June 2018 ([link to web page](#))

Propose additional data quality checks: additional consistency and plausibility checks in production and in development

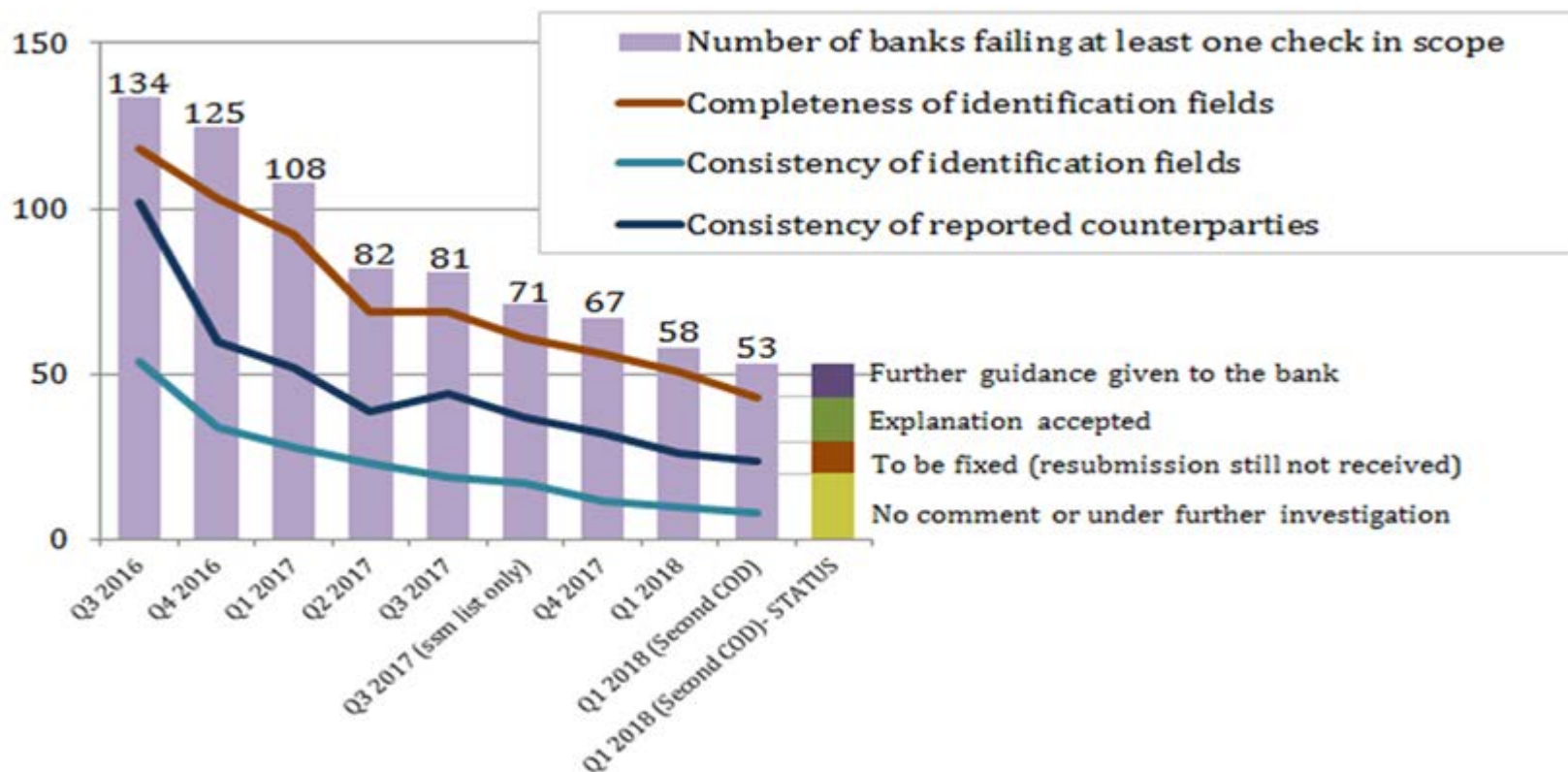
	Number of checks	EGDQ				WG SUP			Production
		Proposed in meeting	Circulated for comments	Circulation of Note (if necessary)	Approval	Circulated for comments	Circulation of Note (if necessary)	Approval	Sent to banks via NCAs
Miscellaneous (Batch 1 and 2)	32								
Large Exposures (Batch 3)	30								
OpRisk batch	21								
Group Structures	30								
Country breakdowns and CBCBODD	6								
nGAAP	31								
Capital adequacy (C 01.00)	21								
Transitional provisions	~ 18								
CA and other templates	20								
IM Analysis Tool	51								
LCR	63								
Credit Risk	12								
Buffers	8								
NPE	16								
Securitisations	22								
Capital items, minimum reserves and obligor grades	16								
Countercyclical and capital conservation buffers	15								
Group Structures II	23								
Submissions of IFRS9									

Propose and develop consistency and plausibility checks (an example)

Evolution of results for checks on Large Exposures, with breakdown of current cases

Incomplete reporting of identification fields in templates C27.00

and additional guidance provided by the ECB



Thank you: Questions or observations

Contents

1 Overview of Data Quality for Q1 2017 – Q1 2018

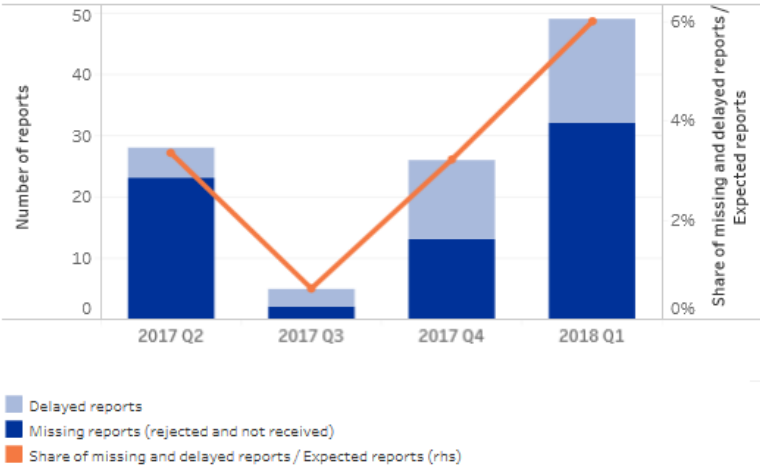
2 Expert Group on Data Quality and deliverables

3 Annex

Punctuality (cut-off date: ECB deadline)

Q4

Not received/rejected and delayed modules in 2017/18

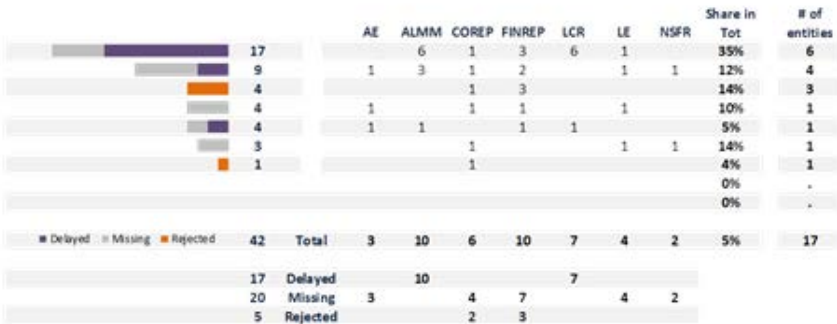


Status of the submissions by module



Q1

Number of not received/rejected and delayed modules as of the first cut-off date, by country and by module



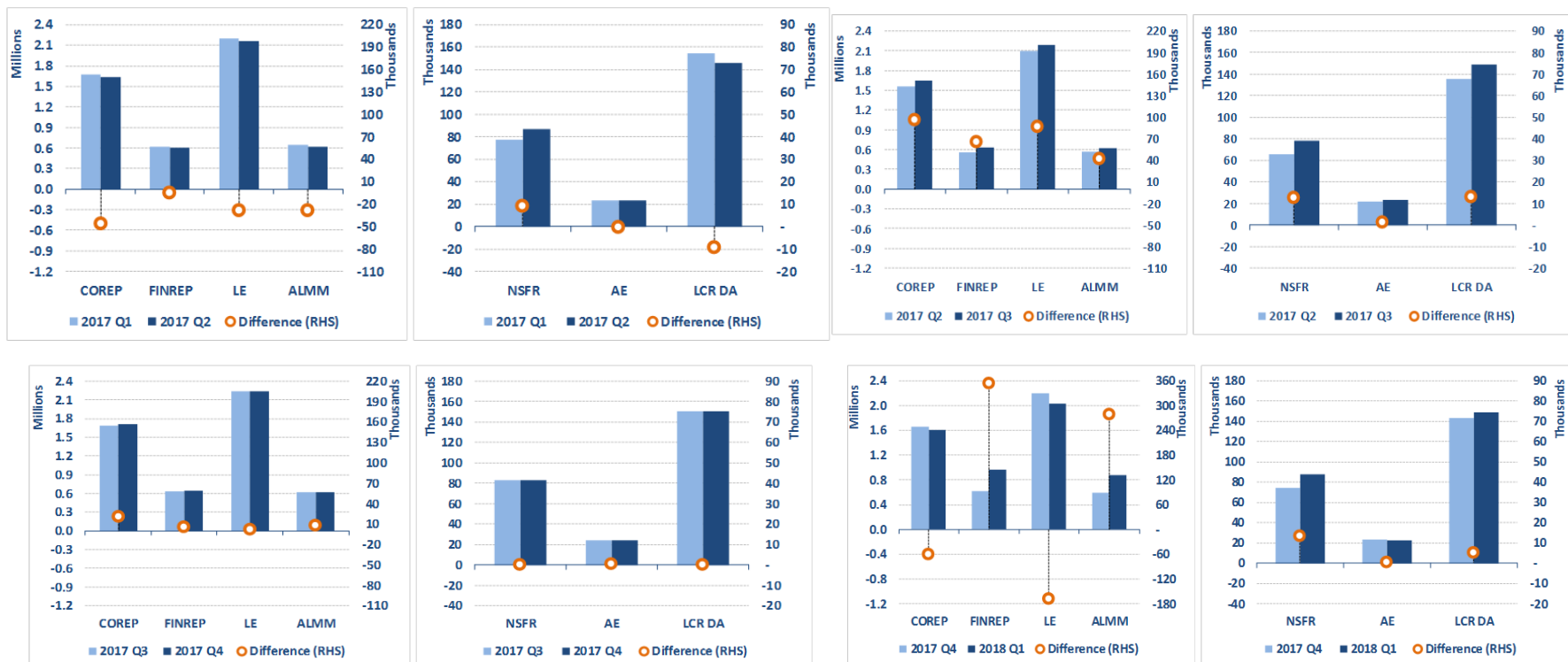
Overview of validation rules (cut-off date: ECB deadline)

Number of validation rule errors (for VR failing at least for 10 institutions)

id	Severity	Number of institutions with at least 1 error triggered by each VR		nr_errors_all	Description
		nr_banks Pending	nr_banks Accepted		
v5739_h	Non-blocking	24	4	67	C08 - Row hierarchy
v4786_m	Warning	43	13	3550	C09.02 EV vs RWE comparison
v6067_m	Warning	48	27	75	Calculation of DTAs
v6068_m	Warning	61	20	81	Calculation of DTAs
v1251_m	Non-blocking	11	1	12	FINREP - Cash balances in central banks
v2773_m	Non-blocking	13	6	19	FINREP - Portfolios in F18
v2776_m	Non-blocking	13	5	18	FINREP - Portfolios in F18
v2780_m	Non-blocking	13	6	19	FINREP - Portfolios in F18
v3028_m	Non-blocking	8	3	11	FINREP - Portfolios in F18
v3035_m	Non-blocking	9	2	11	FINREP - Portfolios in F18
v5228_m	Non-blocking	15	6	21	FINREP - Portfolios in F18
v5231_m	Non-blocking	11	6	17	FINREP - Portfolios in F18
v5235_m	Non-blocking	15	6	21	FINREP - Portfolios in F18
e4894_n	Non-blocking	13	1	211	RWs in C07
e4895_n	Non-blocking	3	25	366	RWs in C07
e4896_n	Non-blocking	2	15	434	RWs in C07
e4898_n	Non-blocking	3	11	283	RWs in C07
e4902_n	Non-blocking	2	11	230	RWs in C07
v3900_s	Non-blocking	6	10	28	Sign convention
v5693_s	Non-blocking	7	10	29	Sign convention
v3693_s	Non-blocking	0	25	30	Transitionals - Sign convention

Soft checks: Stability (cut-off date: ECB deadline)

Number of data points reported Q1 2017 -Q1 2018



Business reasons

Reaching the thresholds for reporting geographical breakdowns

New financial instruments in the balance sheet

Disposal of a subsidiary (affects the number of countries reported)