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Central Bank of Ireland

Eurosystem



Payments Statistics

Validations Workshop – 14 March 2022

Overview

Introduction

ONR Upload process

Data quality process overview

- Data validation timelines
- Data quality flow

Pre-submission validations

- ONR Validation checks
- XSD Conformance Checks
- Pre-submission (consistency) validation checks

Post-submission validation rules

Q&A



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ONR Upload process



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ONR Upload process

Home ▶ Data

Return Types

This page shows the types of data reported by your institution.

(Only the return types which

Payment Statistics

Name	Description	
Payment Statistics Quarterly	Payment Statistics Quarterly	

Home ▶ Data ▶ Payment Statistics Quarterly ▶ _load

[View / Edit Data]
[Administration]
[My Profile]
[Change Password]
[Messages]
[Requests]
[Manage User Accounts]

CXXXXX
_YYYYMMDD_PSQ.zip
OR
CXXXXX
_YYYYMMDD_PSQ.xml

Cxxxxx - the institution code
(up to 7 characters)

YYYYMMDD - must be a valid
reporting date
Please ensure data submitted
is for the relevant reporting
period

PSQ - the PSQ Return code

zip - the file extension (.zip) or
xml - the file extension (.xml)

File Size Limits
Single .zip file <30MB,
containing one file <200Mb
OR
Single .xml file <30Mb

Load a Payment Statistics Quarterly File

Select a file and click 'Load File' to load it to the server:



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ONR Upload process

Load a Payment Statistics Quarterly File

Select a file and click 'Load File' to load it to the server:

Browse...

Load File

Cancel

Payment Statistics Quarterly File #826

Filename: C416327_20210331_PSQ.xml
Status: **Queued**
Return Type: Payment Statistics Quarterly
Size: 11443 bytes
Uploaded Date: 12-Mar-2022 (14:02)
Processed Date: N/A



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Download File

Collapse all Errors

Print current page

Refresh page

ONR Upload process

[Home](#) ▶ [Data](#) ▶ [Payment Statistics Quarterly](#) ▶ [Files](#) ▶ #827

File Upload Status

This page shows the result of uploading a file. Please do not upload any additional files or submit new information unless agreed in advance with the Payment Statistics team.

Your file has been uploaded and is awaiting validation

[PSQ Validation Rules Guidance](#)

[Submit a Request](#)

Payment Statistics Quarterly File #827

Filename:	C416327_20210331_PSQ.xml
Status:	Processing
Return Type:	Payment Statistics Quarterly
Size:	14545 bytes
Uploaded Date:	12-Mar-2022 (14:18)
Processed Date:	N/A

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Data quality process overview

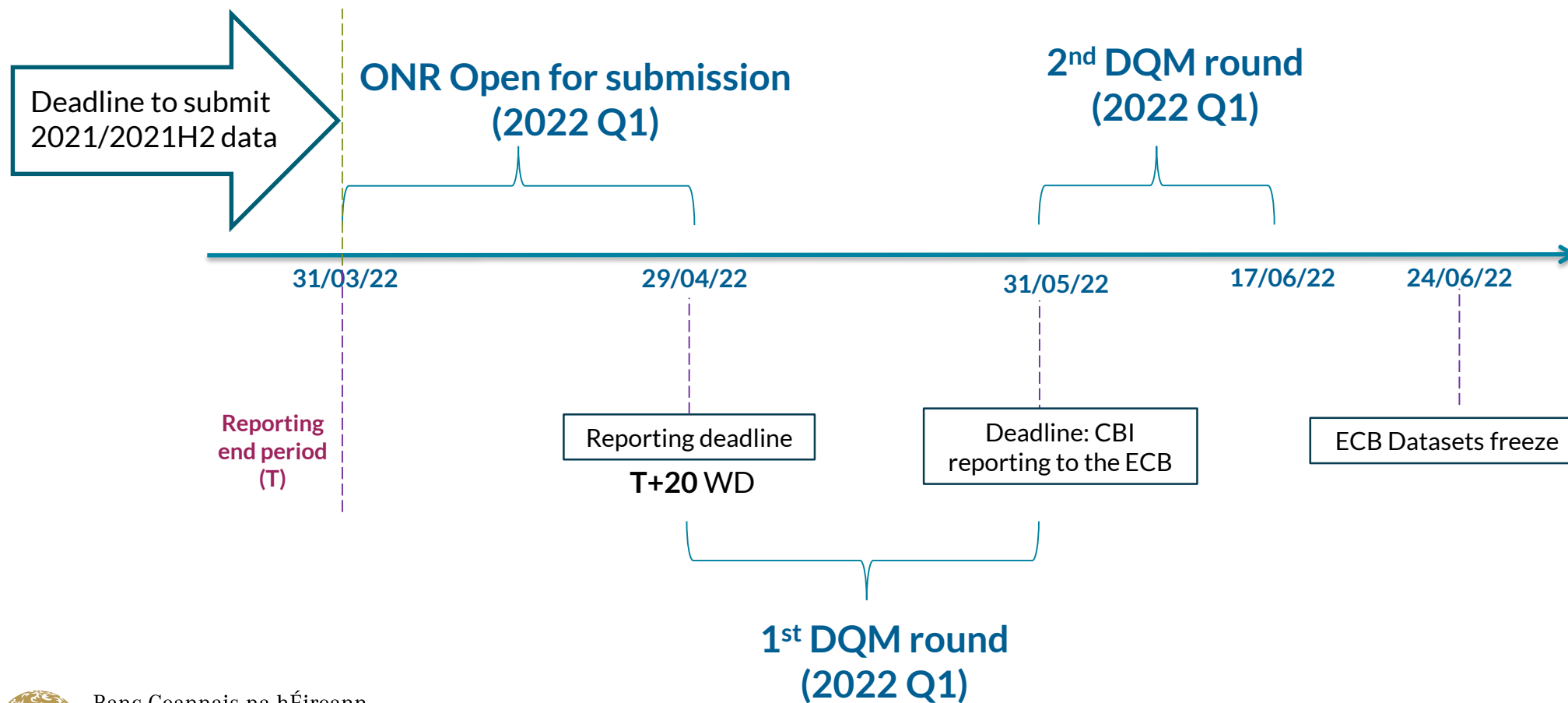


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Data validation – timelines

Production cycle for reference period Q1 2022

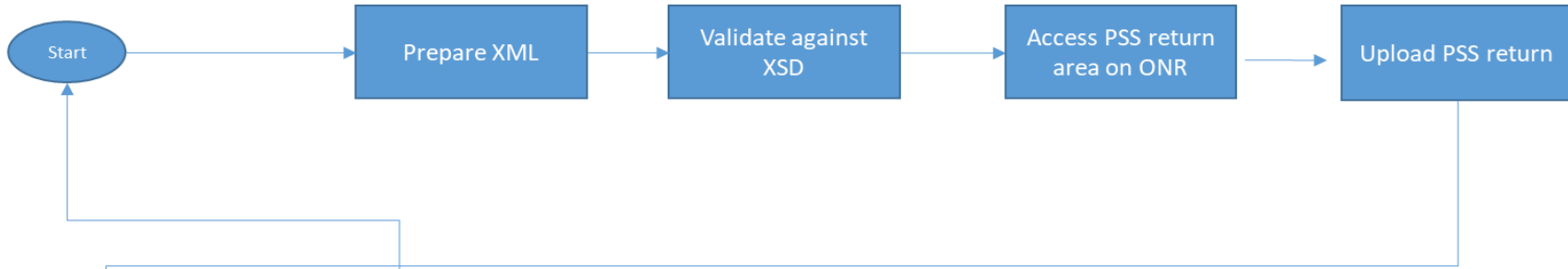


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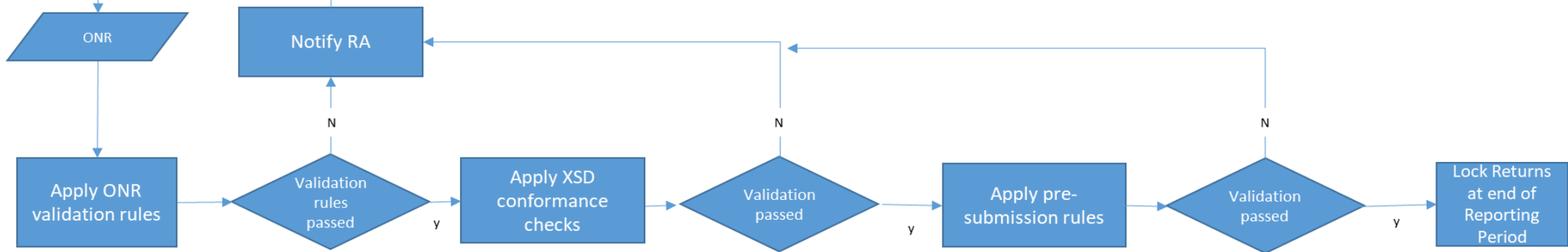
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Payment Statistics Returns Process

Reporting Agent



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Pre-submission validations



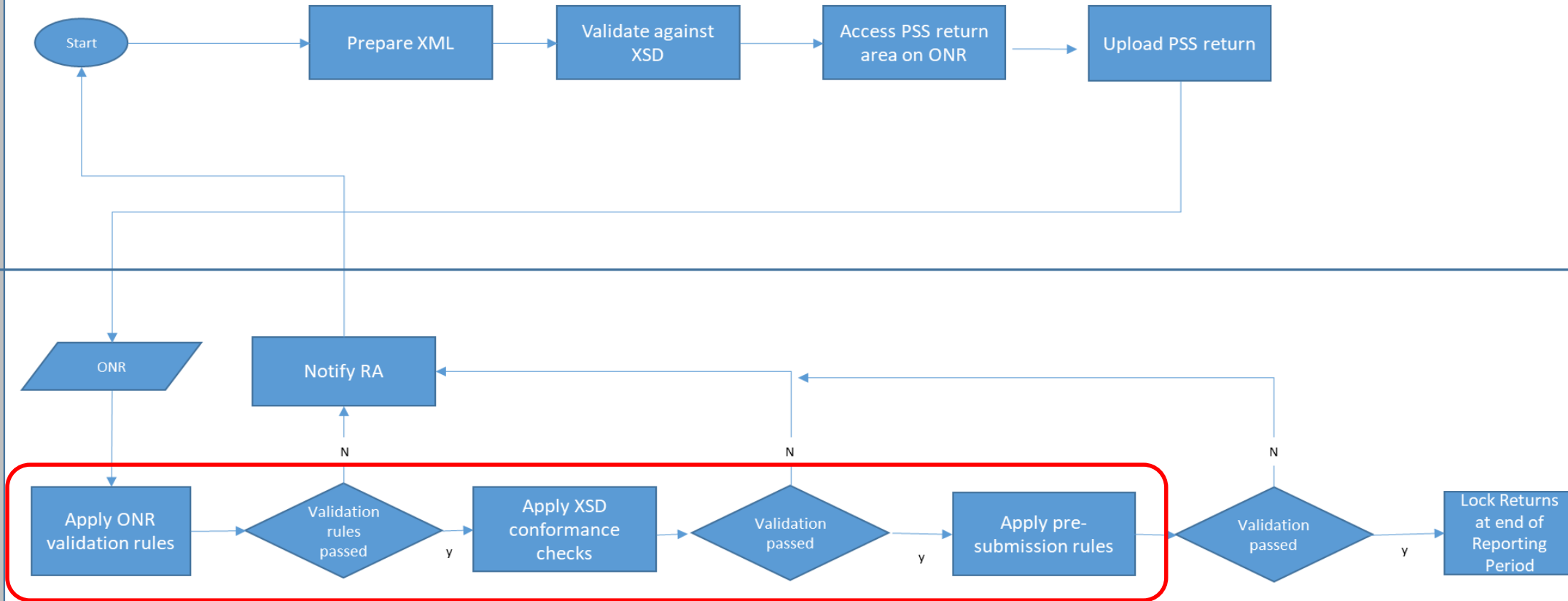
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Payment Statistics Returns Process

Reporting Agent

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ONR Validation checks

- 1st level of validation checks – at the time of upload
- Naming convention:
 - Cxxxxxx_yyyymmdd_PSQ
- Incorrect file name elements
- File formats and file size limits:
 - XML: if .xml file size < 30 MB
 - Single .zip file <30MB containing one .xml file <200MB
- Single file upload
- If ONR checks are broken, no further checks will apply
- Result available instantly on-screen



ONR Validation checks

Naming convention is not followed

- Cxxxxxx_yyyymmdd_PSQ

► Data ► Payment Statistics Quarterly ► _load

load

On this page, you can load a file containing Payment Statistics Quarterly data.

The filename must be of the format: CXXXXXXYYMMDD_PSQ.zip

XXXXYYMMDD_PSQ.xml

XX - the institution Code (2 characters)

YYMMDD - must be a valid date

PSQ - must be a PSQ return

The file extension (.zip) or the file extension (.xml)

Load a Payment Statistics Quarterly File

Select a file and click 'Load File' to load it to the server

Browse...

Error: Filename format is invalid.

Load File Cancel



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ONR Validation checks

Incorrect file name elements

- Incorrect C code on the file name
- XML file C code header correct

Payment Statistics Quarterly ▶ _load

Load a Payment Statistics Quarterly File

Select a file and click 'Load File' to load it to the server:

No file chosen

Institution Code within filename 'C21172' is invalid for current institution.

Filename: C21172_20211231_PSQ

Institution code: C21174

Institution code(filename): C21172

Institution code header (inside the file): C21174



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ONR Validation checks

Incorrect file name elements

- Incorrect C code on the file name
- XML file C code header incorrect

Payment Statistics Quarterly ▶ _load

Load a Payment Statistics Quarterly File

Select a file and click 'Load File' to load it to the server:

No file chosen

Institution Code within filename 'C21172' is invalid for current institution.

Institution code: C21174

Institution code(filename): C21172

Institution code header (inside the file): C21172



Check on file name as 1st level -> no further checks will apply -> XML file header check performed at the 3rd level checks



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ONR Validation checks

- File format:
 - .xml or .zip file
 - Any other file formats won't be uploaded

The screenshot shows a web interface for uploading a file. On the left, there is a sidebar with instructions: "On this page, you can load a file containing Payment Statistics Quarterly data. The file name must be of the form: XXYYMMDD_PSQ.zip or XXXXYYMMDD_PSQ.xml. XX - the institution Code (characters). MMDD - must be a valid reporting date. PSQ - must be a PSQ return type. zip - the file extension (.zip) or xml - the file extension (.xml)". The main area is titled "Load a Payment Statistics Quarterly File" and contains a "Browse..." button, a "Load File" button, and a "Cancel" button. A red oval highlights an error message: "Error: File extension .txt not supported".

- File size limits:
 - XML: if .xml file size < 30 MB
 - Single .zip file < 30MB containing one .xml file < 200MB

The screenshot shows the same web interface as above. The sidebar instructions are identical. The main area shows the same buttons and a red oval highlighting a different error message: "Error: Uploaded file exceeds maximum permissible size".



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ONR Validation checks

- Single file upload
- Error Message if more than one file found inside the Zip file

Home ► Data ► Payment Statistics Quarterly ► _load

File Upload

On this page, you can load a file containing Payment Statistics Quarterly data.

The file name must be of the form:

CXXXXX
_YYYYMMDD_PSQ.zip
OR
CXXXXX
_YYYYMMDD_PSQ.xml

Cxxxxx - the institution code
(up to 7 characters)

YYYYMMDD - must be a valid
reporting date
*Please ensure data submitted
is for the relevant reporting
period*

PSQ - the PSQ Return code

zip - the file extension (.zip) or
xml - the file extension (.xml)

File Size Limits
Single .zip file <30MB,
containing one file <200Mb
OR
Single .xml file <30Mb

Load a Payment Statistics Quarterly File

Select a file and click 'Load File' to load it to the server:

more than 1 XML within\C416303_20210331_PSQ.zip Browse...

Error: Invalid number of files.

Load File Cancel



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XSD Conformance checks

- 2nd level of validation checks
- Available as part of the XML scheme
- Check to confirm that the XML file submitted conforms to the XML schema
- Should be run as part of the XSD prior to upload on ONR
- All data points reported should be ≥ 0
- Data to be reported in original units
 - Values:
 - 2 decimal points;
 - All values should be reported with 2 digits – example: 1 should be reported as 01.00
 - Volumes:
 - Integer
- Errors displayed as per XSD conformance checks – technical vocabulary displayed
- Onscreen messaging and feedback file on XSD Conformance checks limited to 50 errors – should this be an error relating to the structure, only one error will be displayed . Example: if a closing tag is removed this will result in the code not parsing correctly – to avoid this, the file generator should use the schema.



XSD Conformance checks

- All data points reported should be ≥ 0

Payment Statistics Quarterly File #746

Filename: C416303_20210331_PSQ.xml
Status: **Rejected**
Return Type: Payment Statistics Quarterly
Size: 14561 bytes
Uploaded Date: 09-Mar-2022 (15:15)
Processed Date: 09-Mar-2022 (15:16)

Validation Errors

Error: FIL-001

Schema validation error: The 'EuroValue' attribute is invalid - The value **-3685368057.88** is invalid according to its datatype 'Decimal' - The Pattern constraint failed.

Error: FIL-001

Schema validation error: The 'EuroValue' attribute is invalid - The value **-2146727827.78** is invalid according to its datatype 'Decimal' - The Pattern constraint failed.

Error: FIL-001

Schema validation error: The 'EuroValue' attribute is invalid - The value **-2573833447.42** is invalid according to its datatype 'Decimal' - The Pattern constraint failed.



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XSD Conformance checks

- Data to be reported in original units
 - Values:
 - 2 decimal points;
 - All values should be reported with **2 digits** – example: 0 should be reported as 00.00
 - Volumes:
 - Integer

Home ▶ Data ▶ Payment Statistics Quarterly ▶ Files ▶ #807

File Upload Status

This page shows the result of uploading a file. Please do not upload any additional files or submit new information unless agreed in advance with the Payment Statistics team.

We found errors during the validation checks. Up to 10 errors available on screen. Please click on Download Feedback to view the first 50 errors

[PSQ Validation Rules Guidance](#)
[Submit a Request](#)

Payment Statistics Quarterly File #807

Filename:	C416303_20210331_PSQ.xml
Status:	Rejected
Return Type:	Payment Statistics Quarterly
Size:	14532 bytes
Uploaded Date:	11-Mar-2022 (14:09)
Processed Date:	11-Mar-2022 (14:10)

Validation Errors

Error: FIL-001

Schema validation error: The 'EuroValue' attribute is invalid - The value '0.00' is invalid according to its datatype 'Decimal' - The Pattern constraint failed.

[Download Feedback](#)
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XSD Conformance checks

- Data to be reported in original units
 - Values:
 - 2 decimal points;
 - All values should be reported with 2 digits – example: 0 should be reported as 00.00
 - Volumes:
 - Integer

Error: FIL-001

Schema validation error: The 'PureNumber' attribute is invalid - The value '-1' is invalid according to its datatype 'Integer' - The Pattern constraint failed.

Error: FIL-001

Schema validation error: The 'PureNumber' attribute is invalid - The value 'PO' is invalid according to its datatype 'Integer' - The Pattern constraint failed.

Error: FIL-001

Schema validation error: The 'PureNumber' attribute is invalid - The value ' ' is invalid according to its datatype 'Integer' - The Pattern constraint failed.

Error: FIL-001

Schema validation error: The 'PureNumber' attribute is invalid - The value '-5080' is invalid according to its datatype 'Integer' - The Pattern constraint failed.

Error: FIL-001

Schema validation error: The 'PureNumber' attribute is invalid - The value '2115.02' is invalid according to its datatype 'Integer' - The Pattern constraint failed.

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Payment Statistics Quarterly File #751

Filename: C416303_20210331_PSQ.xml
Status: **Rejected**
Return Type: Payment Statistics Quarterly
Size: 14532 bytes
Uploaded Date: 09-Mar-2022 (15:30)
Processed Date: 09-Mar-2022 (15:31)

Validation Errors

Error: FIL-001

Schema validation error: The 'EuroValue' attribute is invalid - The value '3685368057' is invalid according to its datatype 'Decimal' - The Pattern constraint failed.

Error: FIL-001

Schema validation error: The 'EuroValue' attribute is invalid - The value '2573833447.4' is invalid according to its datatype 'Decimal' - The Pattern constraint failed.

Error: FIL-001

Schema validation error: The 'EuroValue' attribute is invalid - The value '790239856.982' is invalid according to its datatype 'Decimal' - The Pattern constraint failed.

Error: FIL-001

Schema validation error: The 'EuroValue' attribute is invalid - The value '3289123203' is invalid according to its datatype 'Decimal' - The Pattern constraint failed.

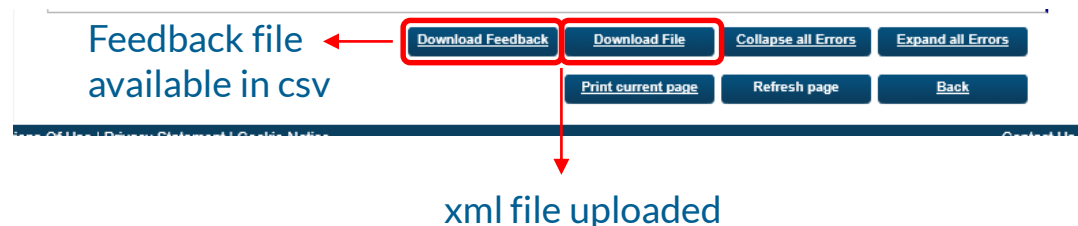


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XSD Conformance checks

- Onscreen messaging and feedback file on XSD Conformance checks limited to 50 errors



- Information available on the feedback file:
 - File upload date/time
 - Error description:
 - Example: Schema validation error: The 'EuroValue' attribute is invalid - The value '14049284647' is invalid according to its datatype 'Decimal' - The Pattern constraint failed
- Feedback file for institution use only – not to be sent back to the Central Bank of Ireland



Pre-submission (consistency) validation rules

- 3rd level validation checks
- Data consistency and other checks
 - Reporting date and reporting agent code (header) included in the XML file
 - Duplicate entries
 - Validation rules PCP_PMC.LIN.QAR._Z.???.038 and PCP_PMC.LIN.QAR._Z.???.040
 - Check that if a value is submitted a corresponding volume is expected (and vice-versa) -> where reported PN and EUR both = 0 or are >0
- Onscreen and downloadable file limited to 50 errors



Pre-submission (consistency) validation rules

- Reporting agent and reporting period included inside the XML file



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Pre-submission (consistency) validation rules

- No duplicated series/data points allowed

Validation Errors

Error: MAX-ERR: Error Threshold of 50 Reached.

Found 577 Errors. We have halted further validation. Please review your submission.

Error: IT1_010: Duplicate Found

577 Duplicate Series Keys Found. Including: PMC.Q.IE._Z.IM.NR.9311.N, PMC.Q.IE._Z.IM.R.7996.N, PMC.Q.IE._Z.IM.NR.5551.N, PMC.Q.IE._Z.IM.R.6010.N, PMC.Q.IE._Z.IM.NR.5271.N, PMC.Q.IE._Z.IM.R.7829.N, PMC.Q.IE._Z.IM.NR.5942.N, PMC.Q.IE._Z.IM.R.5712.N, PMC.Q.IE._Z.IM.NR.7832.N, PMC.Q.IE._Z.IM.R.5499.N, PMC.Q.IE._Z.IM.NR.4112.N, PMC.Q.IE._Z.IM.R.4900.N, PMC.Q.IE._Z.IM.NR.0780.N, PMC.Q.IE._Z.IM.R.7361.N, PMC.Q.IE._Z.IM.NR.9402.N, PMC.Q.IE._Z.IM.R.4813.N, PMC.Q.IE._Z.IM.NR.1711.N, PMC.Q.IE._Z.IM.R.8021.N, PMC.Q.IE._Z.IM.NR.9751.N, PMC.Q.IE._Z.IM.NR.7998.N, PMC.Q.IE._Z.IM.R.5974.N, PMC.Q.IE._Z.IM.NR.4214.N, PMC.Q.IE._Z.IM.R.8651.N, PMC.Q.IE._Z.IM.NR.5998.N, PMC.Q.IE._Z.IM.R.5996.N, PMC.Q.IE._Z.IM.NR.1520.N, PMC.Q.IE._Z.IM.R.6011.N, PMC.Q.IE._Z.IM.NR.7641.N, PMC.Q.IE._Z.IM.R.5074.N, PMC.Q.IE._Z.IM.NR.5691.N,



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Pre-submission (consistency) validation rules

- Consistency checks: explain the relationship between the reporting requirements
 - Card-based payment transactions initiated electronically via non-remote payment channel are greater or equal the sum of the MCC
 - Card-based payment transactions initiated electronically via remote payment channel are greater or equal the sum of the MCC

Table LHS	Table RHS	Type	ID	DSD	LHS	Op.	RHS	Applies to Number and Value (last ?? replaced by PN for number and EUR for value)
Table 9	Table 9	Consistency	PCP_PMC.LIN.QAR._Z.??038	PCP_PMC	PCP.Q.IE._Z.??CP0.1.2000.NR.PCS_ALL._Z._X._Z.N.??	GTE	PMC.Q.IE._Z.??NR.G000.N.??	Y
Table 9	Table 9	Consistency	PCP_PMC.LIN.QAR._Z.??040	PCP_PMC	PCP.Q.IE._Z.??CP0.1.2000.R.PCS_ALL._Z._X._Z.N.??	GTE	PMC.Q.IE._Z.??R.G000.N.??	Y



Pre-submission (consistency) validation rules

- Consistency checks: explain the relationship between the reporting requirements
 - Card-based payment transactions initiated electronically via non-remote payment channel are greater or equal the sum of the MCC
 - Card-based payment transactions initiated electronically via remote payment channel are greater or equal the sum of the MCC

Payment Statistics Quarterly File #826

Filename: C416327_20210331_PSQ.xml
Status: **Rejected**
Return Type: Payment Statistics Quarterly
Size: 11443 bytes
Uploaded Date: 12-Mar-2022 (14:02)
Processed Date: 12-Mar-2022 (14:04)

Validation Errors

Error: IT1_013.3: Remote Euro LHS missing.

POS Location: IM has PMC Series For Remote(Euro) but no PCP Series.

Error: IT1_013.3: Non-Remote Euro LHS missing.

POS Location: IM has PMC Series For Non-Remote(Euro) but no PCP Series.

Error: IT1_013.3: Remote PN LHS missing.

POS Location: IM has PMC Series For Remote(PureNumber) but no PCP Series.

Error: IT1_013.3: Non-Remote PN LHS missing.

POS Location: IM has PMC Series For Non-Remote(PureNumber) but no PCP Series.

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Pre-submission (consistency) validation rules

- Check that if a value is submitted a corresponding volume is expected (and vice-versa) -> where reported PN and EUR both = 0 or are >0

PureNumber set as zero while EuroValue is different than zero for PAY.Q.IM.CHQ.2._Z.N



Payment Statistics Quarterly File #828

Filename:	C416327_20210331_PSQ.xml
Status:	Rejected
Return Type:	Payment Statistics Quarterly
Size:	14541 bytes
Uploaded Date:	12-Mar-2022 (14:23)
Processed Date:	N/A

Validation Errors

Error: IT1_011: Series Keys with INVALID EuroValue or PureNumber attributes Found

PAY.Q.IE.IM.CHQ.2._Z.N, 3685368057.88, 0

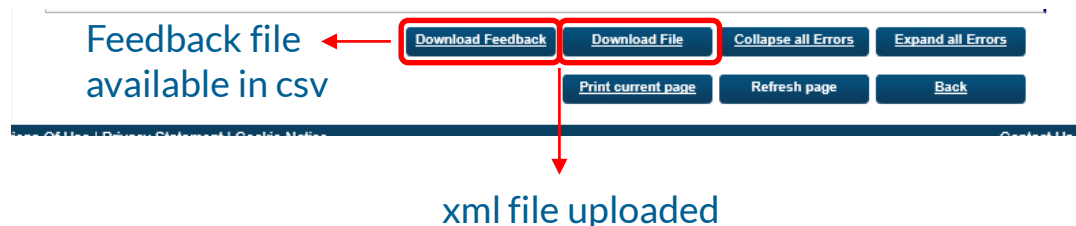
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Pre-submission (consistency) validation rules



- Onscreen messaging and feedback file on pre-submission checks limited to 50 errors
- Information available on the feedback file:
 - File upload date/time
 - Error description:
 - Example: IT1_011: Series Keys with INVALID EuroValue or PureNumber attributes Found -> PCP.Q.IE._Z.IM.CP0.1.2000.NR.PCS_ALL._Z._X._Z.N, 30.00, 0
- Feedback file for institution use only – not to be sent back to the Central Bank of Ireland



Post-submission validations



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Post-submission checks

- Plausibility checks
 - Trend analysis
 - Comparison between Quarterly vs PSA (estimated quarters)
- Cross-returns (semi-annual vs quarterly)
- Further checks and details to be communicated at a later stage



Way Forward

- External UAT starting 15th March to end-April
 - If not yet set up on ONR please e-mail paystats@centralbank.ie requesting a test user. Please provide:
 - First Name, Last Name
 - Existing ONR username (if applicable)
 - E-mail
 - Phone number
- 2021 PSA/PFD data – due at the Central Bank by 31 March 2022 (under old format, in Excel)



Way Forward

- All 2022 reference data will be submitted under the Updated ECB Regulation
 - Full reporters:
 - Q1 2022 data due at the Central Bank by 29th April 2022 (T+20 WD)
 - Post-submission queries to be expected during May and early June 2022
 - Q2 2022 data due at the Central Bank by 28th July 2022
 - Q3 2022 data due at the Central Bank by 28th October 2022
 - H1 2022 data due at the Central Bank by August 2022
 - Post-submission queries including Table4a/Table 9 alignment queries expected during September/October 2022
 - Derogated reporters:
 - H1 2022 data due at the Central Bank by August 2022



QUESTIONS?

paystats@centralbank.ie



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