

AUTUMN WORKSHOP – IRELAND

12 NOVEMBER 2020



AGENDA

- **EVIDENCE OF COVID-19 IN OUR DATA**
- **RECENT EU REGULATORY DEVELOPMENTS**
- **TRANSITIONAL PERIOD REPORTING**
- **PROXY DATA**
- **EDW EXTENDED REPORTING TEMPLATES**
- **Q&A**

ON TODAY'S CALL



DR. CHRISTIAN THUN
EUROPEAN DATAWAREHOUSE

✉ christian.thun@eurodw.eu



ROBERTO PEREZ
EUROPEAN DATAWAREHOUSE

✉ roberto.valle@eurodw.eu



JOEL PENN
EUROPEAN DATAWAREHOUSE

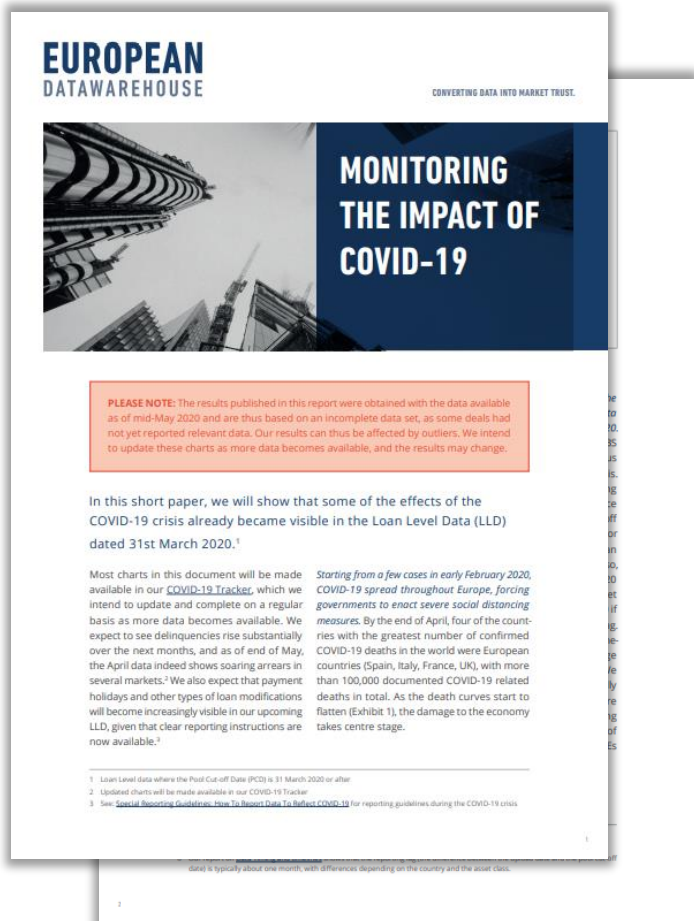
✉ joel.penn@eurodw.eu

EVIDENCE OF COVID-19 IN OUR DATA

ROBERTO PEREZ

COVID-19 RESEARCH REPORT

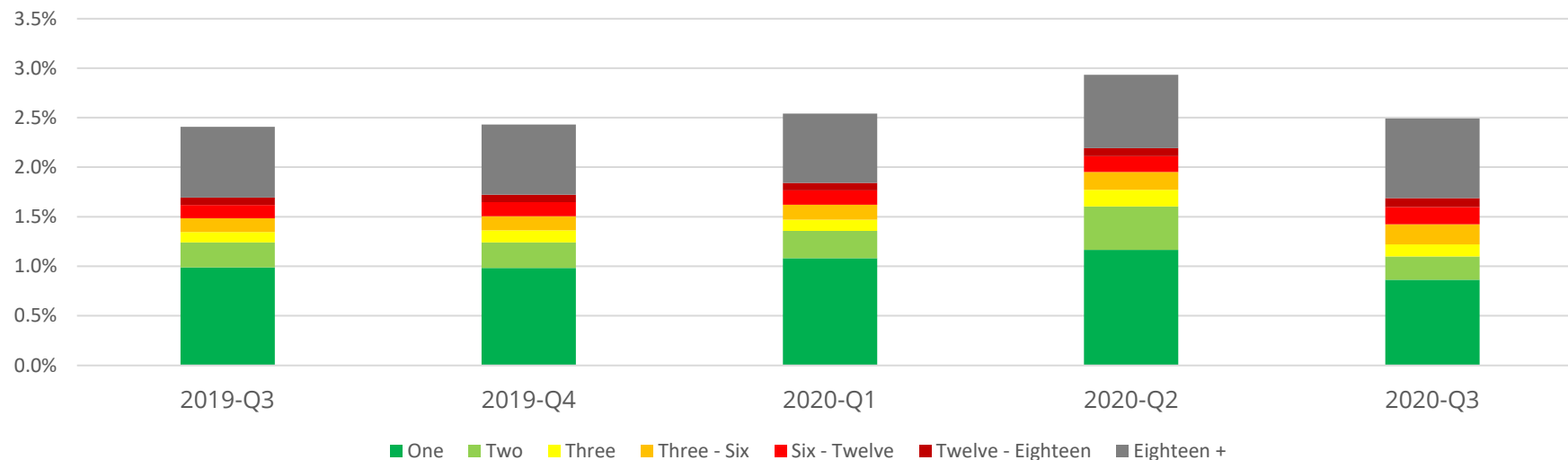
Updated regularly with the latest info



RMBS

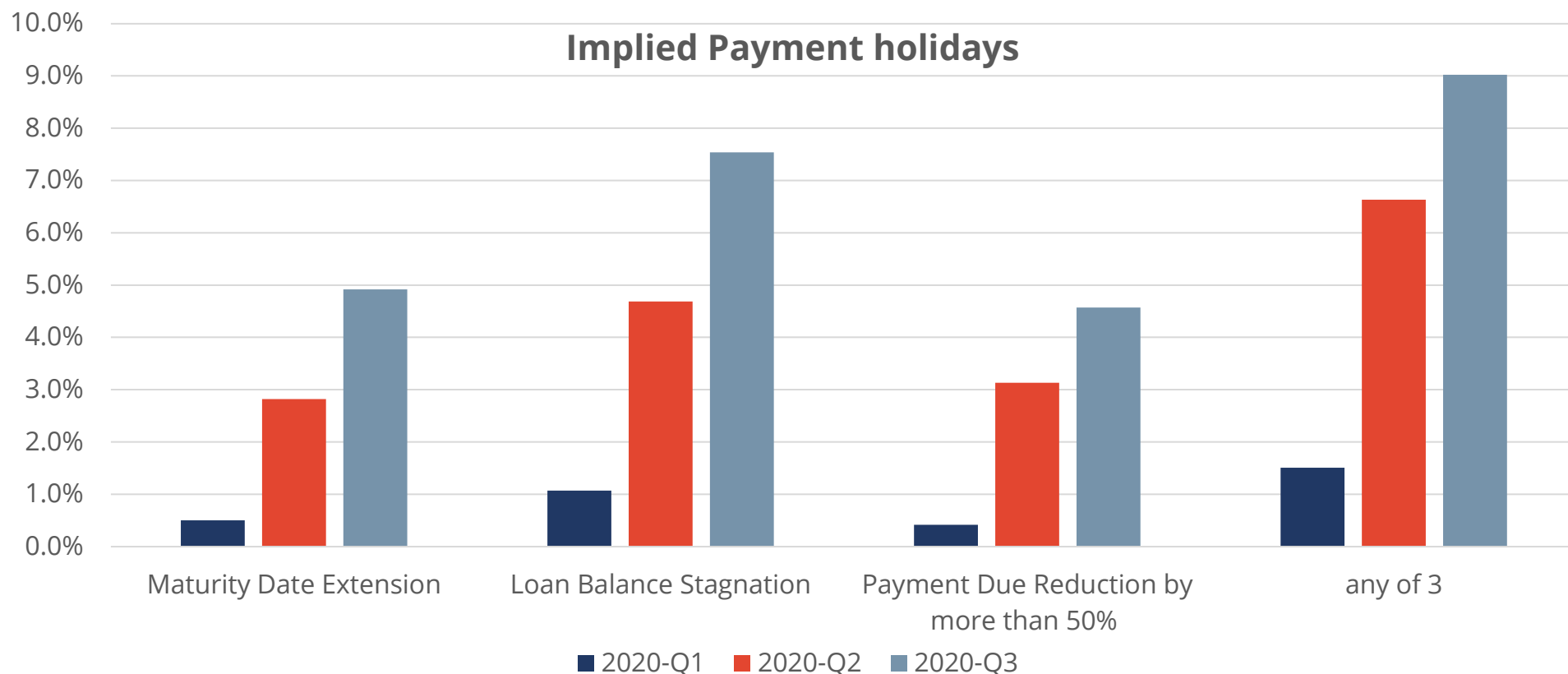
Arrears in European RMBS deals

Mortgage Loans in Arrears - EU and UK
(by Number of Months in Arrears as % of Outstanding Amount)



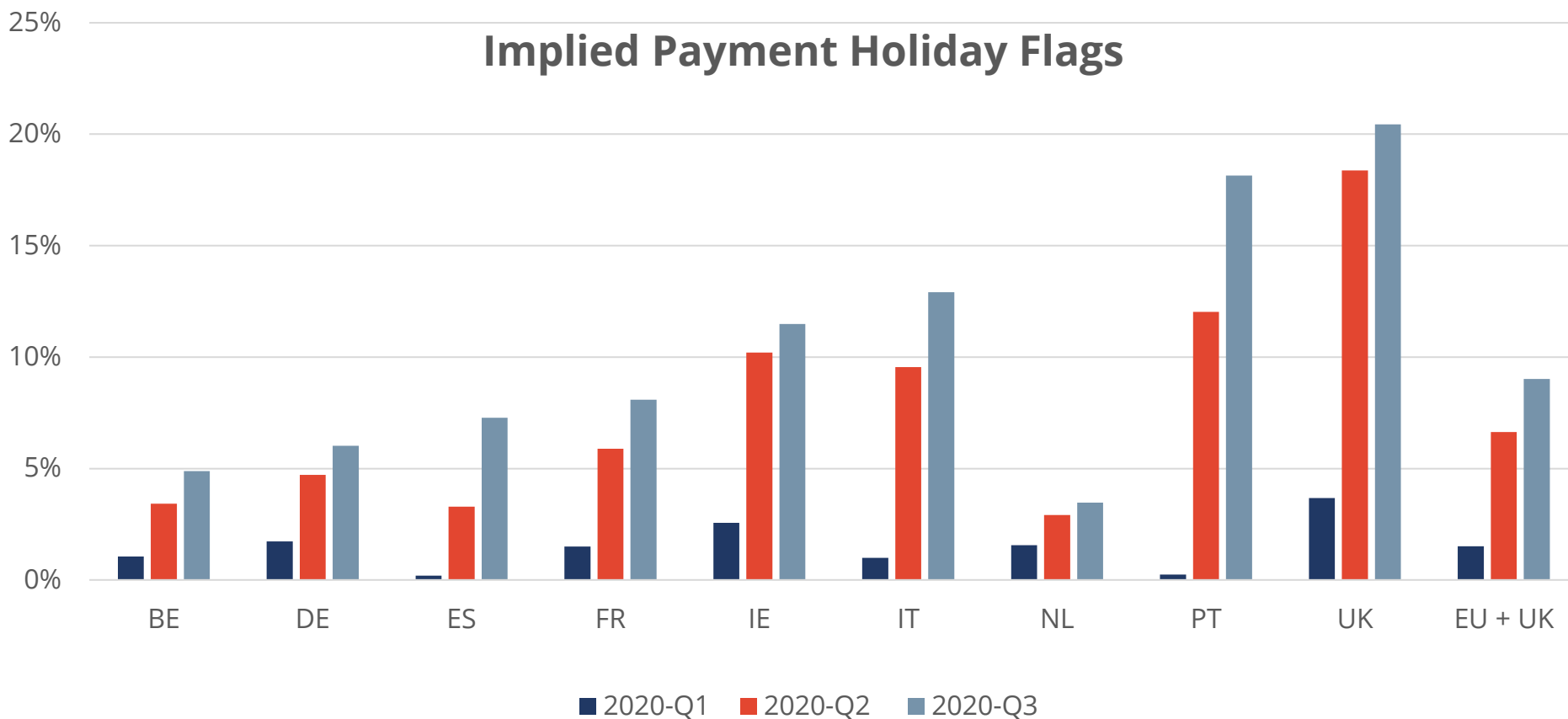
RMBS

Implied Payment Holidays in EU plus UK



RMBS

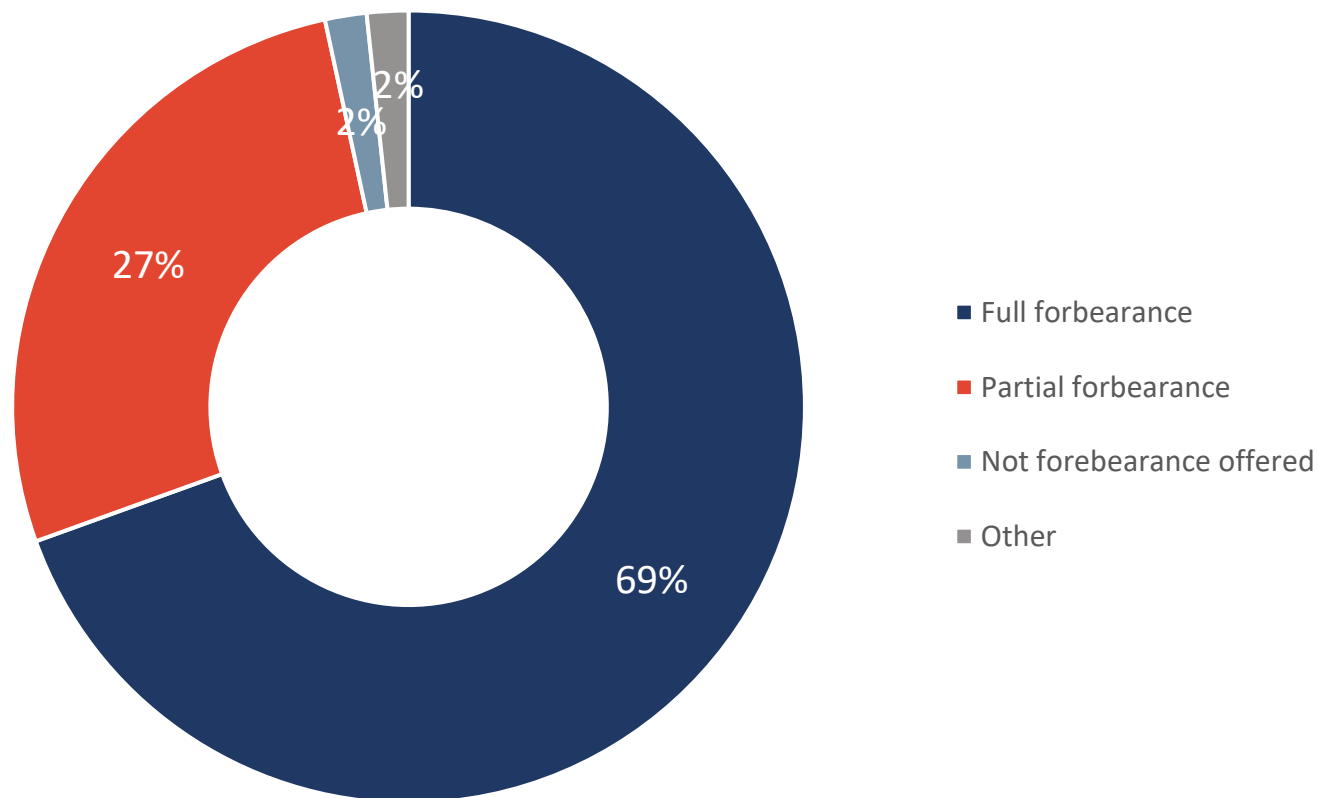
Country level



COVID-19 IN OUR DATA – CUSTOMER DISCUSSION

Type of forbearance

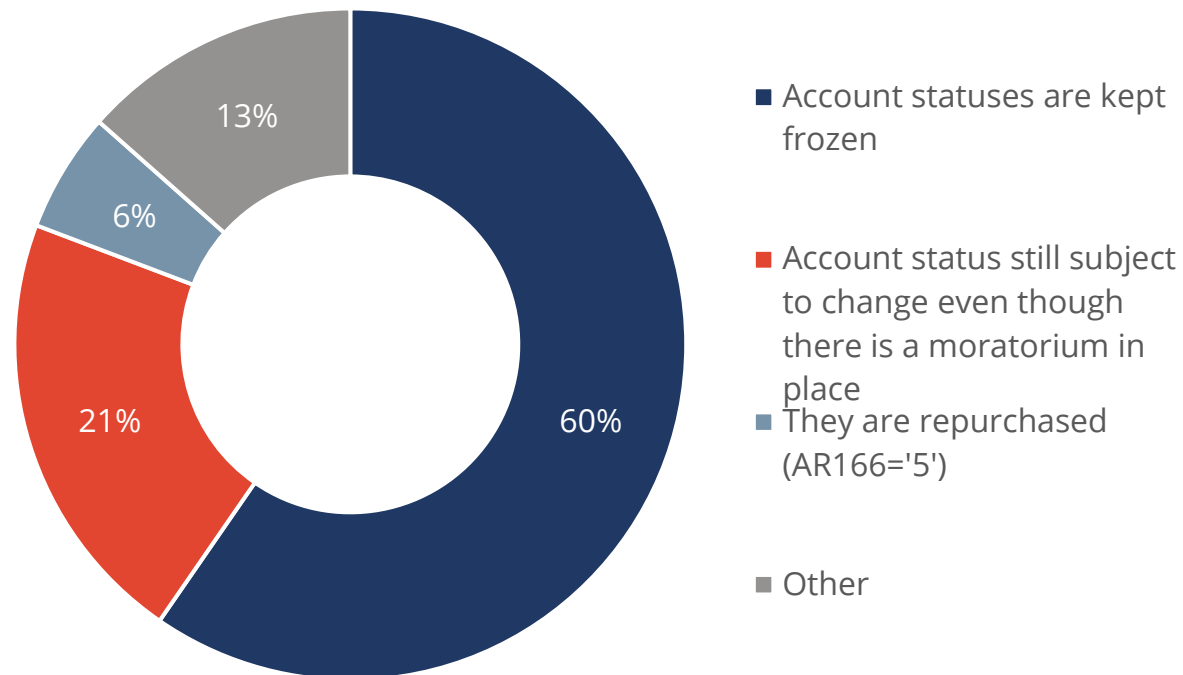
Measures taken by the banks to provide a relief to clients whose payment ability is affected by COVID-19 include:



COVID-19 IN OUR DATA – CUSTOMER DISCUSSION

Account Status

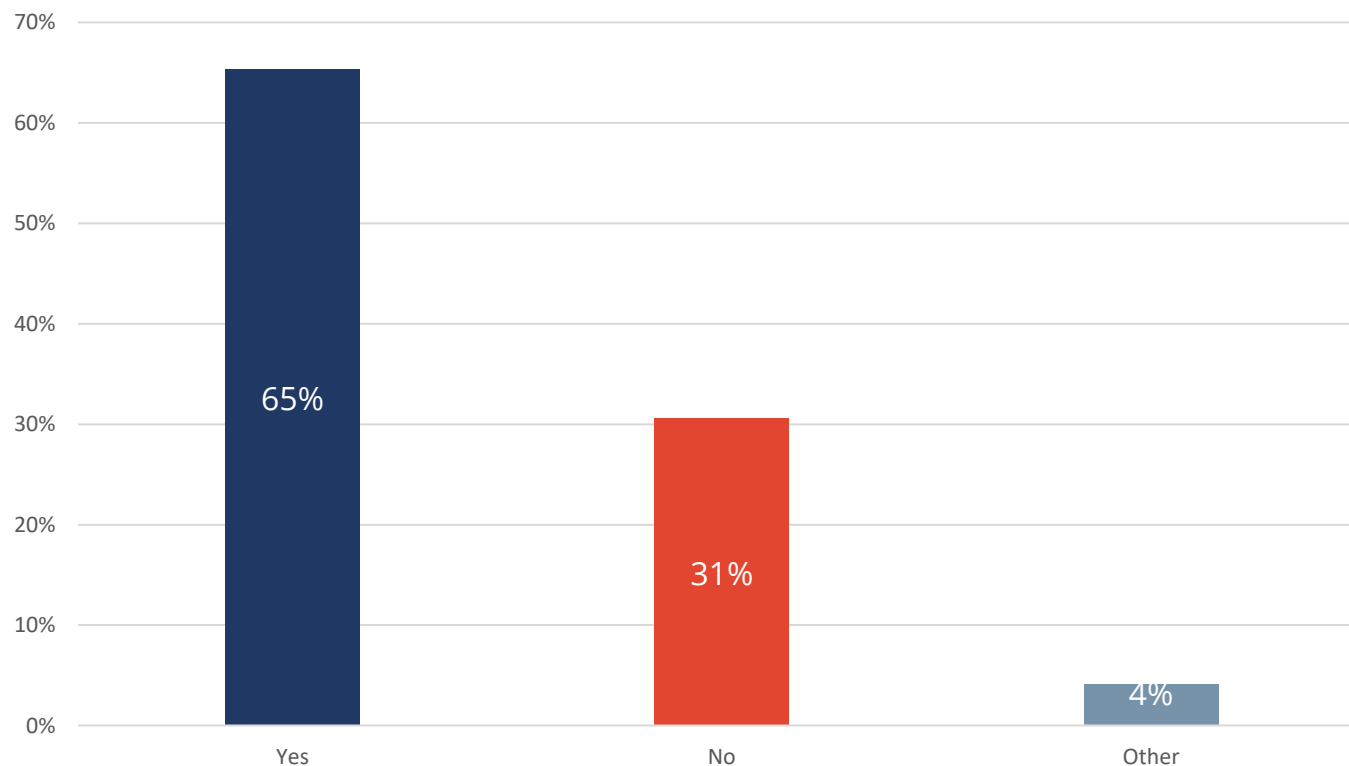
How do you report the account status for loans that benefit from a payment moratorium ?



COVID-19 IN OUR DATA – CUSTOMER DISCUSSION

Payment Due

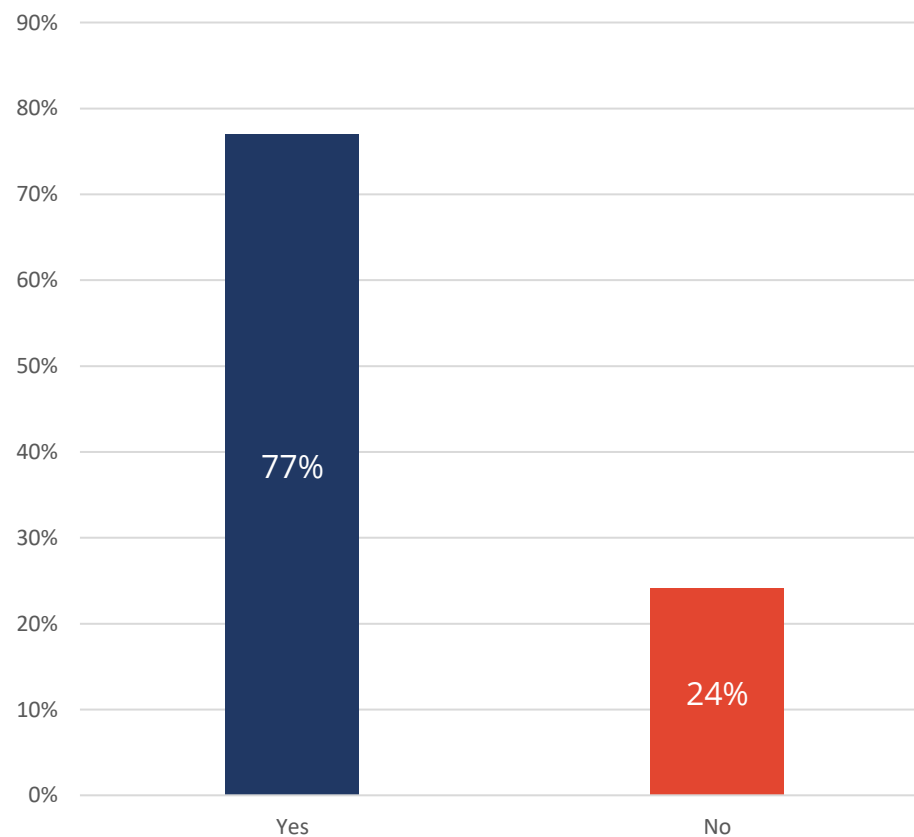
Does the reported Payment Due reflect the moratorium as requested by ECB ?



COVID-19 IN OUR DATA – CUSTOMER DISCUSSION

Maturity Date

Have you changed the maturity date of loans that fall under a payment moratorium ?

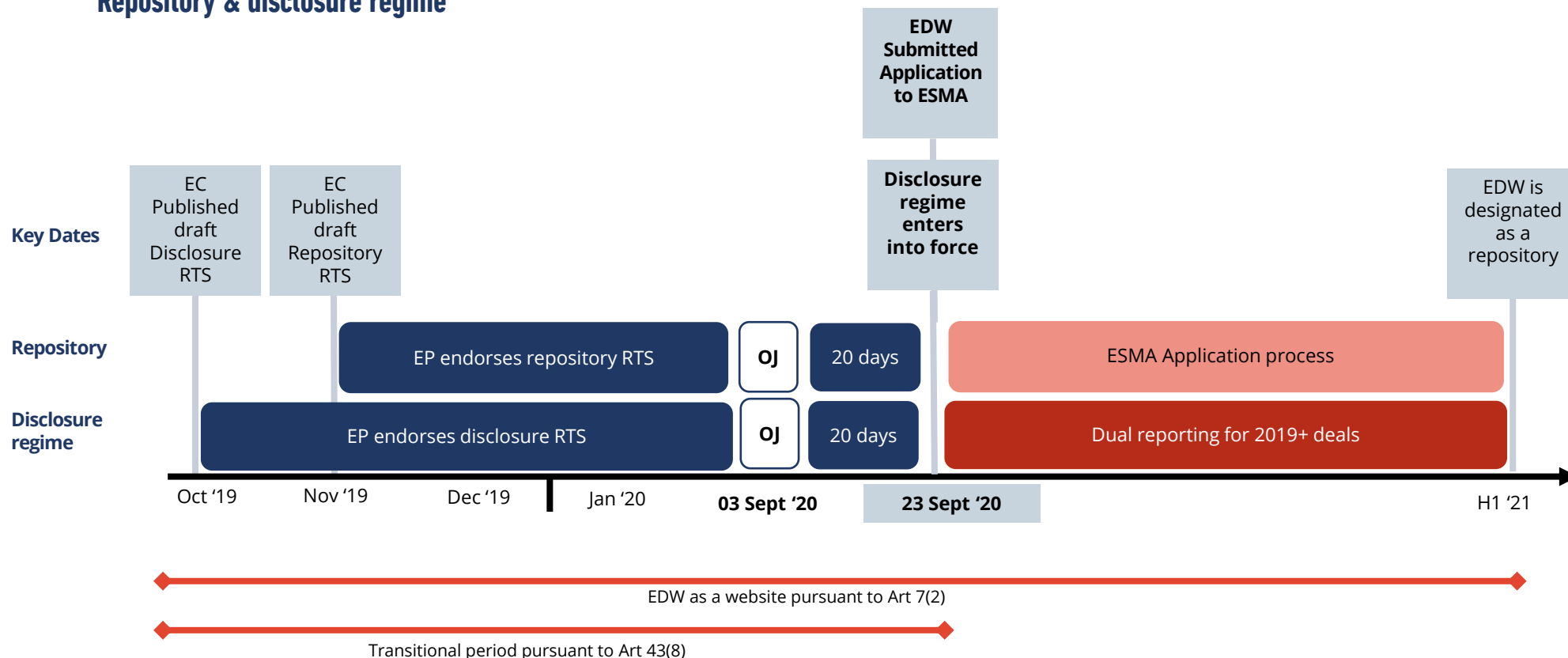


RECENT EU REGULATORY DEVELOPMENTS

JOEL PENN

REGULATORY TIMELINE IN 2019-2021

Repository & disclosure regime



EC: European Commission

EP: European Parliament

ESMA: European Securities and Markets Authority

OJ: Official Journal of the European Union – publication of the Level 2 of the RTS following the translation into the national languages of the European Union

RTS: Regulatory Technical Standards

PUBLICATION OF THE PENDING RTS/ITS IN THE OFFICIAL JOURNAL OF THE EU

- On 3 September 2020, the pending Regulatory and Implementing Technical Standards (RTS/ITS) of the Securitisation Regulation (EU) 2017/2402 were published in the Official Journal (OJ)
- These include:
 - RTS/ITS on disclosure requirements
 - RTS/ITS on the Securitisation Repository (SR) registration
 - RTS on SR operations standards
 - RTS/ITS on STS Notifications
- The date of entry into force for the published RTS/ITS under the Securitisation Regulation is 23 September 2020

<div> <div>  </div> <div> <div> <div>English edition</div> <div>Legislation</div> </div> <div> <div>Volume 63</div> <div>3 September 2020</div> </div> </div> </div>	
Contents	
II Non-legislative acts	
REGULATIONS	
* Commission Delegated Regulation (EU) 2020/1224 of 16 October 2019 supplementing Regulation (EU) 2017/2402 of the European Parliament and of the Council with regard to regulatory technical standards specifying the information and the details of a securitisation to be made available by the originator, sponsor and SSPE (*)	1
* Commission Implementing Regulation (EU) 2020/1225 of 29 October 2019 laying down implementing technical standards with regard to the format and standardised templates for making available the information and details of a securitisation by the originator, sponsor and SSPE (*)	217
* Commission Delegated Regulation (EU) 2020/1226 of 12 November 2019 supplementing Regulation (EU) 2017/2402 of the European Parliament and of the Council and laying down regulatory technical standards specifying the information to be provided in accordance with the STS notification requirements (*)	285
* Commission Implementing Regulation (EU) 2020/1227 of 12 November 2019 laying down implementing technical standards with regard to templates for the provision of information in accordance with the STS notification requirements (*)	315
* Commission Implementing Regulation (EU) 2020/1228 of 29 November 2019 laying down implementing technical standards with regard to the format of applications for registration as a securitisation repository or for extension of a registration of a trade repository pursuant to Regulation (EU) 2017/2402 of the European Parliament and of the Council (*)	330
* Commission Delegated Regulation (EU) 2020/1229 of 29 November 2019 supplementing Regulation (EU) 2017/2402 of the European Parliament and of the Council with regard to regulatory technical standards on securitisation repository operational standards for data collection, aggregation, comparison, access and verification of completeness and consistency (*)	335

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2020:289:FULL&from=EN>

ENTRY INTO FORCE OF THE SECURITISATION REGULATION REQUIREMENTS

- ESMA has confirmed that the date of entry into force for the published RTS/ITS under the Securitisation Regulation is 23 September 2020
- In the meantime, EDW already serves the securitisation market as a website compliant with the requirements set out in Article 7 (2) of the Securitisation Regulation (EU) 2017/2402.

ESMA CONFIRMS SECURITISATION REGULATION REQUIREMENTS ENTRY INTO FORCE ON 23 SEPTEMBER 2020

04 September 2020

SECURITISATION

The European Securities and Markets Authority (ESMA), the EU's securities markets regulator, confirms that the different elements of the new regime under the Securitisation Regulation will come into force on 23 September 2020.

This follows the publication of seven technical standards implementing the Securitisation Regulation in the Official Journal of the European Union. The publication of the technical standards triggers

- Opening of applications for entities to register as Securitisation Repository (SR); and
 - Entry into force of new disclosure templates
- Opening of applications for entities to register as SR

<https://www.esma.europa.eu/press-news/esma-news/esma-confirms-securitisation-regulation-requirements-entry-force-23-september>

EUROPEAN DATAWAREHOUSE SUBMITS APPLICATION TO ESMA TO BE REGISTERED AS A SECURITISATION REPOSITORY

EUROPEAN DATAWAREHOUSE

PRESS RELEASE

European DataWarehouse Submits Application to ESMA to be Registered as a Securitisation Repository

FRANKFURT, GERMANY – 23 September 2020 – European DataWarehouse (EDW) today announced it has submitted its application to become a Securitisation Repository registered and supervised by the European Securities and Markets Authority (ESMA).

The extensive application describes in detail the sound operational and technical aspects of the company and its market-leading reporting solutions.

In January 2018, European DataWarehouse announced its application to become a Securitisation Repository under the Securitisation Regulation. The platform was initially launched to reflect the latest template characteristics.

Prof. José Manuel González-Páramo stated: "EDW was founded in 2011 to restore the track record as the securitisation market and restore the track record as the securitisation market. Hence our continued support towards the goal of great market, and we are confident that the repository services which are a successful application".

Steve Gandy, Managing Director of EDW, added: "As a founding shareholder, we are committed to promoting best practice in the market. Hence our continued support towards the goal of great market, and we are confident that the repository services which are a successful application".

ESMA RECEIVES SECURITISATION REPOSITORY REGISTRATION APPLICATION

23 September 2020

SECURITISATION

The European Securities and Markets Authority (ESMA), the EU's securities markets regulator, has received its first application for registration as a securitisation repository (SR) under the Securitisation Regulation.

ESMA, under the Securitisation Regulation, has direct responsibilities regarding the registration and supervision of SRs, who centrally collect and maintain the records of securitisation transactions in the EU.

The reporting obligation for reporting entities will begin with the registration of the first SR. ESMA will announce publicly when the first SR(s) are registered.

If you are interested in applying for a registration, please refer to this guidance, and for further information on the registration process, please contact SR-registration@esma.europa.eu.

"European DataWarehouse (EDW) today (23 September 2020) announced it has submitted its application to become a Securitisation Repository registered and supervised by the European Securities and Markets Authority (ESMA).

The extensive application describes in detail the sound operational and technical aspects of the company and its market-leading reporting solutions."

ECB PRESS RELEASE OF 22 MARCH 2019

On 22 March 2019, the European Central Bank announced that the **“transparency requirements of the EU Securitisation Regulation will be incorporated into the Eurosystem collateral framework”**

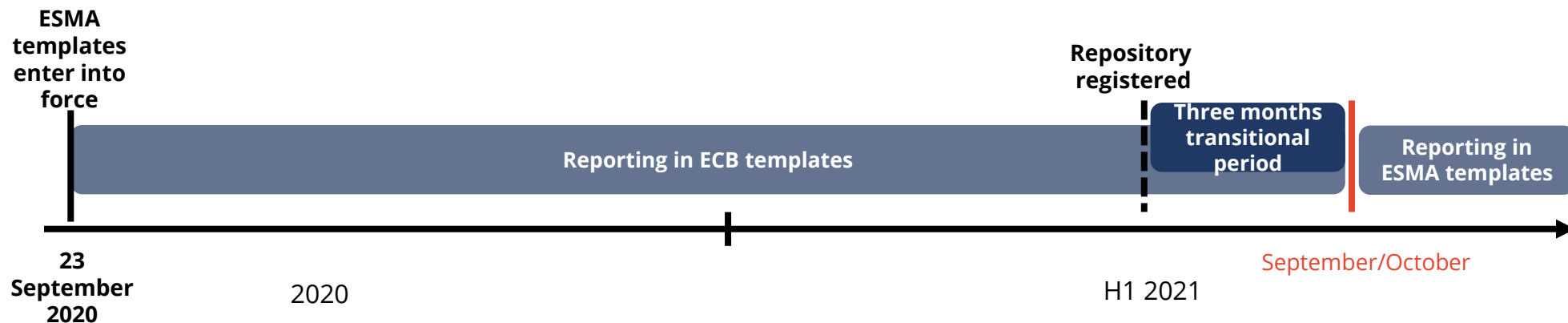
As part of this, the ECB has decided the following:

- The eligibility requirements for loan-level data reporting in the Eurosystem collateral framework will be adjusted to reflect EU Securitisation Regulation’s disclosure requirements
- The eligibility criteria for asset-backed securities will change at a future date, subject to the following two conditions being met:
 1. **The ESMA templates adopted by the European Commission must have entered into force**
 2. At least one securitisation repository must have been registered by ESMA
- The phasing-in of the new loan-level data requirements will be gradual

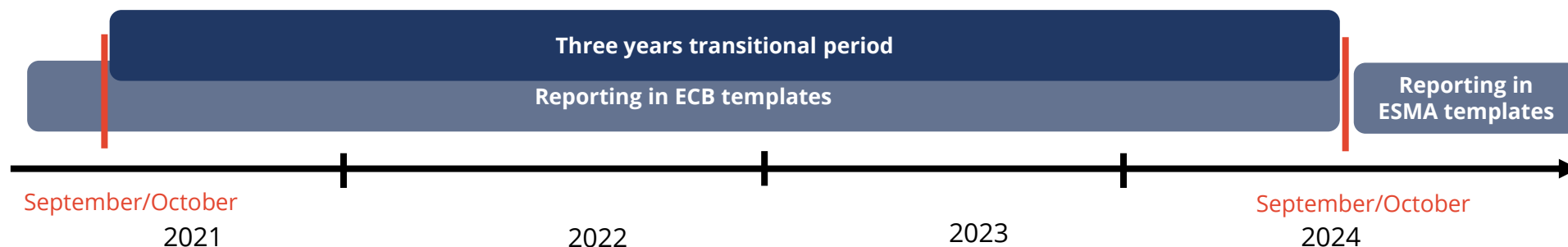
<https://www.ecb.europa.eu/press/pr/date/2019/html/ecb.pr190322~1fdcd3c43.en.html>

TENTATIVE TIMELINE* OF THE EUROSISTEM PHASING-IN OF THE NEW LOAN-LEVEL DATA REQUIREMENTS

Eurosistem transparency regime for 2019+ deals



Eurosistem transparency regime for < 2019 deals



* This timeline is based on ED calculations with the information publicly available as of September 2020 and it is potentially subject to change

TRANSITIONAL PERIOD REPORTING

ROBERTO PEREZ

MEETING THE WEBSITE REQUIREMENTS SET OUT IN ARTICLE 7(2) OF THE (EU) 2017/2402

European Datawarehouse:

1. Includes a well-functioning data quality control system
2. Is subject to appropriate governance standards and to maintenance and operation of an adequate organisational structure that ensures the continuity and orderly functioning of the website
3. Is subject to appropriate systems, controls and procedures that identify all relevant sources of operational risk
4. Includes systems that ensure the protection and integrity of the information received and the prompt recording of the information
5. Makes it possible to keep record of the information for at least five years after the maturity date of the securitisation

DISCLOSURE REQUIREMENTS – DOCUMENTS TO REPORT

Everything you need to know about the Reporting Requirements of the EU Securitisation Regulation

Disclosure Requirements - Documents to Report



Before Pricing

Documentation



Item Code	Document
[3]	Final offering document; prospectus; closing transaction documents, excluding legal opinions
[4]	Asset sale agreement; assignment; novation or transfer agreement; any relevant declaration of trust
[5]	Derivatives and guarantees agreements; any relevant documents on collateralisation arrangements where the exposures being securitised remain exposures of the originator
[6]	Servicing; back-up servicing; administration and cash management agreements
[7]	Trust deed; security deed; agency agreement; account bank agreement; guaranteed investment contract; incorporated terms or master trust framework or master definitions agreement or such legal documentation with equivalent legal value
[8]	Inter-creditor agreements; derivatives documentation; subordinated loan agreements; start-up loan agreements and liquidity facility agreements
[9]	Any other underlying documentation that is essential for the understanding of the transaction
[10]	STS Notification



Quarterly (Non-ABCP); Monthly (ABCP)

XML Data Templates



[1]	Underlying exposures or underlying receivables or credit claims XML	
[2] [11] or [12]	Investor report Inside Information or Significant Event	Common XML file to report [2] and [11]/[12] in a single XML file XML

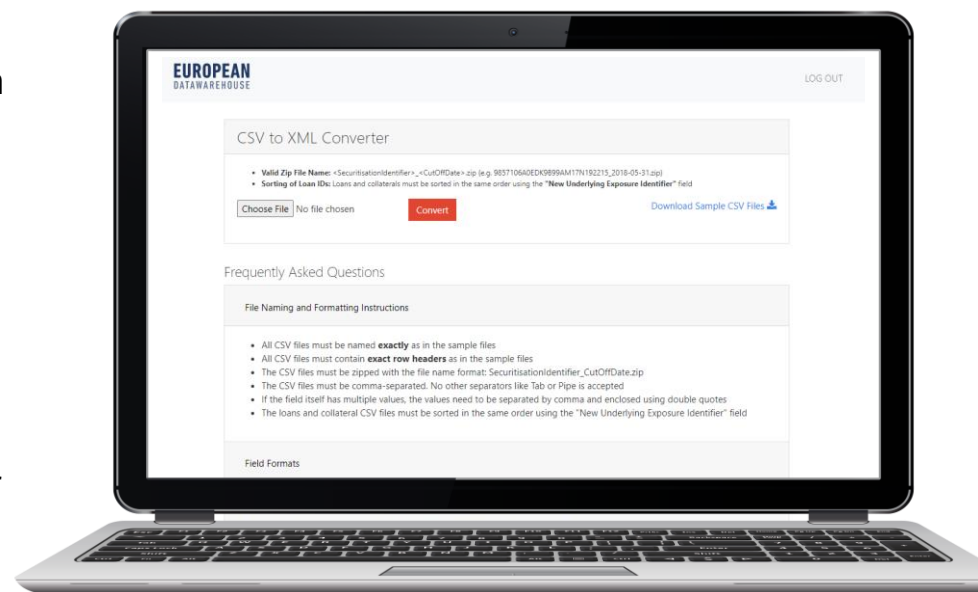
XML CONVERTER UPDATES

EDW offers an online portal (<https://csv2xml.eurodw.eu>) to convert ESMA Templates from EDW defined CSV to ESMA XML Format

Following the publication of the latest XML schema (v 1.2.0) by ESMA on 19 August 2020, EDW has released an updated version of the XML Converter

Main improvements include the following enhancements:

- Optional collaterals (performing exposures) for Corporate and Esoteric templates
- Optional collaterals (non-performing exposures) for Credit Cards, Consumer, Corporate and Esoteric templates



EDITOR UPDATES ON SECURITISATION IDENTIFIERS

To enable a smooth conversion/ upload, the following steps have been added from 23 September 2020 in the deal creation process and CSV–XML conversion:

Securitization Identifier



Your securitisation ID is not registered on EDITOR. Please send an email to enquiries@eurodw.eu with both your securitisation ID and EDCode to map the securitisation ID on EDITOR.

Securitisation ID population

- LEI of Reporting Entity + N (for non-ABCP) + Vintage + Serial Number
- LEI of Reporting Entity + A (for ABCP) + Vintage + Serial Number



SUBMIT AND MANAGE DOCUMENTS – INDIVIDUAL DOCUMENT UPLOAD

Interface showing the document management options: ECB Template, ESMA Template, and Documents (highlighted). Below the tabs, it indicates 0 Documents Uploaded.

To upload an individual document:

1. Please click “Documents” and select the Document Type
2. Individual document upload also supports URL upload.

Upload New Document(s)

Upload Type: Document (selected), Link

Document Type: Investor Reports

Document File: Investor Report_2019-09-15.pdf

Signature File: Click or drop signature file here

Is Provisional? Yes No

Is Private? Yes No

Reset Upload

Document Information Required

Pool Cut-off Date: [Calendar icon]

Proceed Cancel

Upload New Document(s)

• 15049: Invalid File Name.

Please note:

- **Signature File is not mandatory for Document Upload**
- The types of Underlying Exposures, Investor Reports, Inside Information and Significant Events request also the Pool Cut-off Date in the file name with the below format, otherwise an error will be displayed indicating “Invalid File Name”.
- **FileName_YYYY-MM-DD**
YYYY-MM-DD refers to the pool cut-off date (PCD). For example the file name of the investor report could be **Investor Report_2019-10-15.pdf**
The PCD is supposed to be in line with the PCD in the LLD file

SUBMIT AND MANAGE DOCUMENTS – MULTIPLE DOCUMENT UPLOAD

Deals / AUTSDE87LI37103620198
STS Test Deal

Information Data & Documents ECB Template ESMA Template **Documents**

Here you can upload and/or delete submitted documents for this Entity. 0 Documents Uploaded

Upload New Document(s)

Upload Type
Document Link

Document Type
Multiple

Document File
Click or drop file here

Signature File
Click or drop signature file here

Is Provisional?
Yes No

Is Private?
Yes No

Reset Upload

1_LeaseLoan_2019-12-01.pdf
2_Investor Report_2019-12-01.pdf
3_AccountDetail.pdf
4_Detail4 - Copy.pdf
5_Detail5.pdf
6_Detail6.pdf
7_Detail7.pdf
8_Detail8.pdf
9_Detail9_00.pdf
11_Inside Information_2019-12-01.pdf
12_Significant Event_2019-12-01.pdf
529900IUR3CZBV87LI37N201921.zip

To upload multiple documents,

1. Click "Documents" and select "**Multiple**" as the "Document Type" to upload.

Please note:

- To upload multiple documents, the filename needs to include the item codes. The zip file name could be "SecuritisationID.zip" or "EDCode.zip"
- The types of **Underlying Exposures, Investor Reports, Significant Events and Inside Information** require also the Pool Cut-off Date in the file name with the format:
ItemCode_FileName_YYYY-MM-DD
ItemCode_FileName

For example,
2_Investor Report_2019-10-15
3_Prospectus
11_Inside Information_2019-10-15
12_Significant Event_2019-10-15

PROXY DATA

JOEL PENN

PROXY DATA TO COMPLY WITH ARTICLE 22(1) FOR THE STS TRANSACTIONS

European DataWarehouse can help your organisation comply with relevant performance requirements

- With over 1300 transactions, ED offers solutions for the issuers/originators/SSPEs to comply with the STS Requirements relating to transparency
- ED can perform on-demand SQL queries to extract historical performance data from its database across asset classes for a period of at least five years. The performance data includes historical arrears, defaults for exposures similar to those being securitised.

L 347/62

EN

Official Journal of the European Union

28.12.2017

Article 22

Requirements relating to transparency

1. The originator and the sponsor shall make available data on static and dynamic historical default and loss performance, such as delinquency and default data, for substantially similar exposures to those being securitised, and the sources of those data and the basis for claiming similarity, to potential investors before pricing. Those data shall cover a period of at least five years.

PERFORMANCE TABLES

5 Years of Historical Arrears of a Sample of Substantially Similar Mortgage Receivables (Source: European DataWarehouse)

Date	Outstanding Balance	0-30 days	30-60 days	60-90 days	90-120 days	120-150 days	150-180 days	180+ days
31 March 2014	886,240,154	0.59%	0.12%	0.05%	0.02%	0.03%	0.02%	0.23%
30 June 2014	872,109,172	0.74%	0.27%	0.12%	0.14%	0.02%	0.02%	0.18%
30 September 2014	880,784,118	0.25%	0.10%	0.03%	0.00%	0.02%	0.00%	0.00%
31 December 2014	843,694,237	2.92%	0.23%	0.12%	0.06%	0.04%	0.02%	0.13%
31 March 2015	810,849,988	2.09%	0.21%	0.14%	0.01%	0.07%	0.03%	0.13%
30 June 2015	818,402,751	2.90%	0.28%	0.06%	0.03%	0.15%	0.04%	0.11%

NOVEMBER 2020

PROXY DATA PROCESS

5 Stage process designed for data set optimisation

Initial Communication

ED and the client identify and discuss any extraordinary characteristics of the desired pool to be securitised. For instance:

- Origination years
- Occupancy type
- Interest rate type
- Guarantee type etc.



Deals Selection

ED selects a list of deals based on:

- completeness of data
- results of data quality checks
- the pool characteristics discussed

The list of deals is then shared, and modified based on client feedback



Proxy Loans Selection

A subset of the underlying loans (based on the characteristics portfolio to be securitised) from the selected deals are taken as proxy loans. Their historical performance data is compiled

adcode	deal name	vintage
RMBSXX12345678912XXXX1	ABC 2014	2014
RMBSXX12345678912XXXX1	XYZ 2014	2014
RMBSXX12345678912XXXX1	ABC 2015	2015
RMBSXX12345678912XXXX1	XYZ 2015	2015
RMBSXX12345678912XXXX1	ABC 2016	2016
RMBSXX12345678912XXXX1	XYZ 2016	2016
RMBSXX12345678912XXXX1	ABC 2017	2017
RMBSXX12345678912XXXX1	XYZ 2017	2017
RMBSXX12345678912XXXX1	ABC 2018	2018
RMBSXX12345678912XXXX1	XYZ 2018	2018
RMBSXX12345678912XXXX1	ABC 2019	2019
RMBSXX12345678912XXXX1	XYZ 2019	2019



Result: Proxy Data

Final Performance Dataset

The final performance dataset includes static Default/Loss and Dynamic Arrears information

- Static pools are based on the year of securitisation
- Since each portfolio to be securitised has a unique set of characteristics, ED applies principles of good judgement while being transparent



Adjustments to the data

Dataset from each selected deal is scrutinised further for quality

Any idiosyncratic reporting practices in a deal are adjusted to one standard.

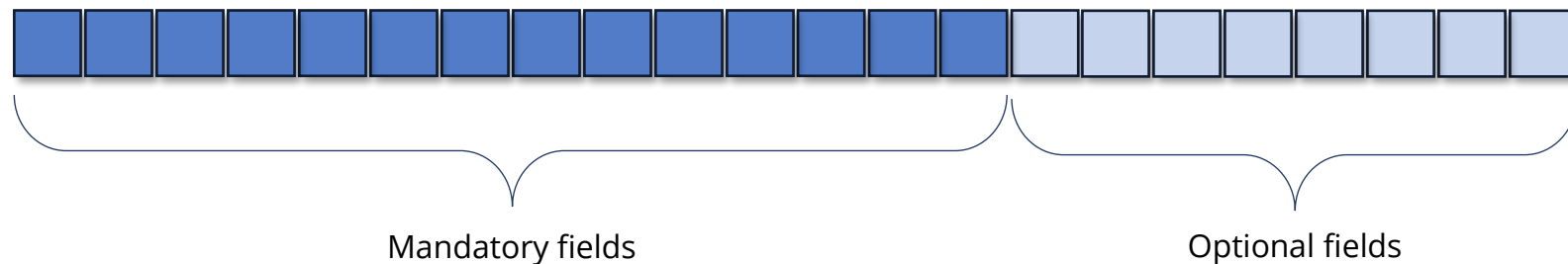
Any outlying results are investigated and discussed with the relevant ED analyst

EDW EXTENDED REPORTING TEMPLATES

DR. CHRISTIAN THUN

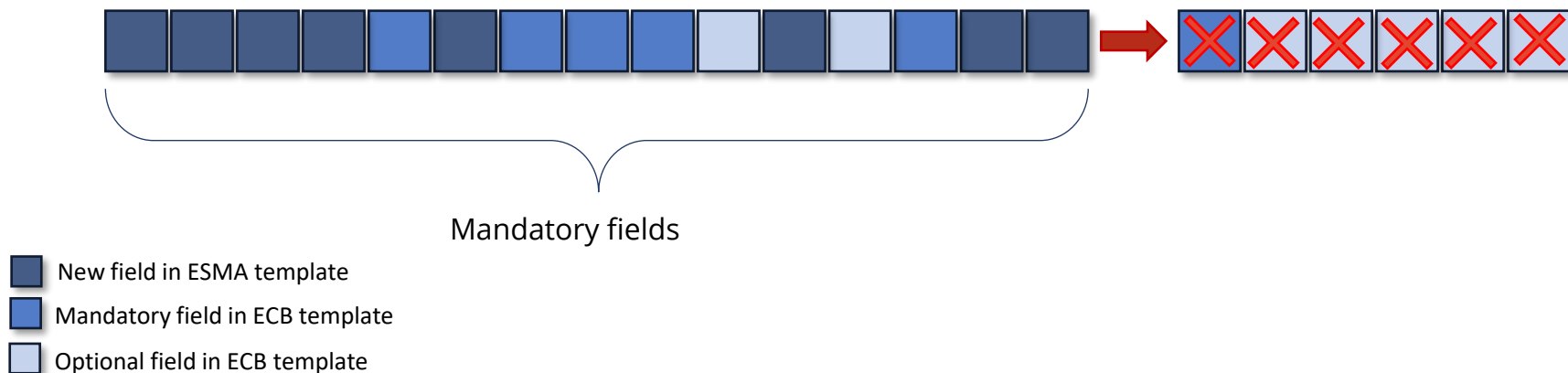
ECB TEMPLATES 2012 – TODAY

- The ECB templates included mandatory and optional fields
- The mandatory fields had to be populated
- The optional fields could be populated if needed



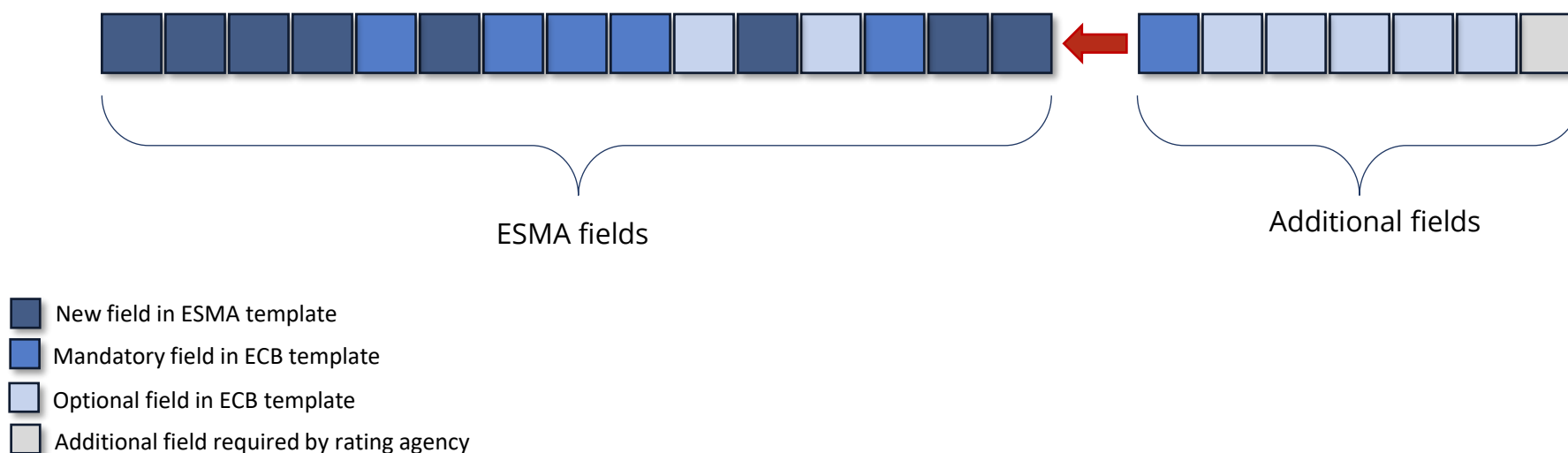
ESMA TEMPLATES 2018 AND GOING FORWARD

- The ESMA templates are based on the ECB templates but differ on several key points
- It includes only mandatory fields, of which some were optional in the ECB format
- Some fields that were mentioned as mandatory in the ECB template were dropped from the ESMA template



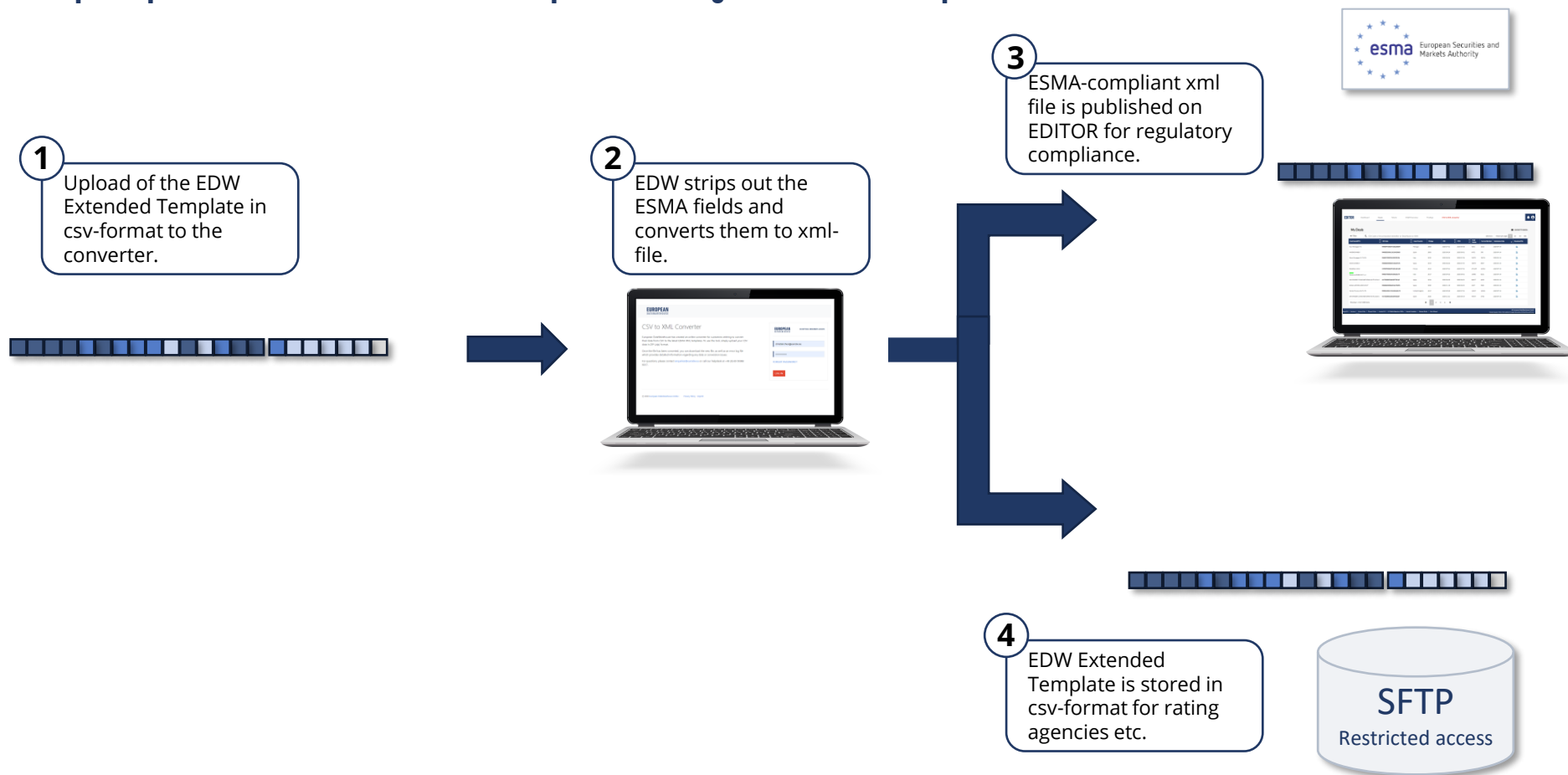
EDW EXTENDED TEMPLATES

- Some of the fields that rating agencies need are not in the ESMA template
- EDW therefore consulted rating agencies to produce an optional template extension to add the info not mentioned in the ESMA template if needed
- Our EDW Extended Templates can be used to supply in one upload the ESMA required data and the extra fields needed by the rating agencies, if any



EDW EXTENDED TEMPLATES – DATA PROCESS

The upload process for the EDW Extended Templates is straightforward and simple.



KEY FEATURES & BENEFITS

KEY FEATURES

- **EDW Extended Templates contain all mandatory data fields prescribed by ESMA + the additional fields relevant for rating agencies**
- **Data can be submitted in easy to use csv-format**
- **Automatic generation of ESMA compliance files in XML-format**
- **EDW Extended Templates are provided via SFTP with restricted access for selected parties only**

KEY BENEFITS

- **EDW Extended Templates have been designed by EDW and the four leading rating agencies**
- **No need to prepare a second loan tape for rating agencies**
- **Saves time and resources**
- **Free of charge**



Q&A

THANK YOU//CONTACT US

EUROPEAN DATAWAREHOUSE GMBH

Walther-von-Cronberg-Platz 2

60594 Frankfurt am Main

www.eurodw.eu

enquiries@eurodw.eu

+49 (0) 69 50986 9017

This presentation (the "Presentation") has been prepared by European DataWarehouse GmbH (the "Company") and is being made available for information purposes only. The Presentation is strictly confidential and any disclosure, use, copying and circulation of this Presentation is prohibited without the consent from the Company. Information in this Presentation, including forecast financial information, should not be considered as advice or a recommendation to investors or potential investors in relation to holding, purchasing or selling securities or other financial products or instruments and does not take into account your particular investment objectives, financial situation or needs. No representation, warranty or undertaking, express or implied, is made as to the accuracy, completeness or appropriateness of the information and opinions contained in this Presentation. Under no circumstances shall the Company have any liability for any loss or damage that may arise from the use of this Presentation or the information or opinions contained herein. Certain of the information contained herein may include forward-looking statements relating to the business, financial performance and results of the Company and/or the industry in which it operates. Forward-looking statements concern future circumstances and results and other statements that are not historical facts, sometimes identified by the words "believes", "expects", "predicts", "intends", "projects", "plans", "estimates", "aims", "foresees", "anticipates", "targets", "may", "will", "should" and similar expression. The forward-looking looking statements, contained in this Presentation, including assumptions, opinions and views of the Company or cited from third party sources are solely opinions and forecasts which are uncertain and subject to risks.