

SECURITISATION EVENT SERIES

DUBLIN – 23 APRIL 2024



AT TODAY'S WORKSHOP



DR. CHRISTIAN THUN
EUROPEAN DATAWAREHOUSE

✉ christian.thun@eurodw.eu



JASON GRAFFAM
MORNINGSTAR DBRS

✉ jason.graffam@morningstar.com



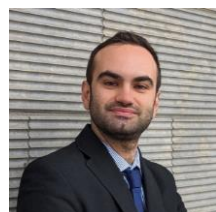
MARTIN KUHN
EUROPEAN DATAWAREHOUSE

✉ martin.kuhn@eurodw.eu



MICHAEL OSSWALD
STS VERIFICATION INTERNATIONAL

✉ michael.osswald@svi-gmbh.com



MANUEL LOPES
EUROPEAN DATAWAREHOUSE

✉ manuel.lopes@eurodw.eu

AGENDA

- WELCOME & INTRODUCTION: **DR. CHRISTIAN THUN, EUROPEAN DATAWAREHOUSE**
- DATA QUALITY AND NEW PRODUCTS PRESENTATION: **MARTIN KHUN, EUROPEAN DATAWAREHOUSE**
- THE LATEST DEVELOPMENTS IN STS AND SYNTHETIC SECURITISATIONS: **MICHAEL OSSWALD (SVI)**
- ESG PROJECTS AND DEAL REPORT: **MANUEL LOPES, EUROPEAN DATAWAREHOUSE**
- IRELAND'S ECONOMIC OUTLOOK: **JASON GRAFFAM, MORNINGSTAR DBRS**
- Q&A
- CLOSING REMARKS

WELCOME & INTRODUCTION

DR. CHRISTIAN THUN, EUROPEAN DATAWAREHOUSE

EUROPE'S SECURITISATION MARKET GAINS SUPPORT

A Kantian shift for the capital markets union

Speech by Christine Lagarde, President of the ECB, at the European Banking Congress

Frankfurt am Main, 17 November 2023

In 1844, the American poet Ralph Waldo Emerson observed that “rather than a magician’s rod in its power to evoke the sleeping energies of land and sea, we have a more powerful in our bank-based financial system.”^[1]

A genuine CMU would mean building a sufficiently large securitisation market allowing banks to transfer some risk to investors, release capital and increase additional lending. In the United States, banks have access to a market that is three times the size of Europe’s. This could be even more powerful in our bank-based financial system.

ENRICO LETTA

bankerverband

Position paper

of the Association of German Banks on securitisations

9 April 2024

Nicole Quade
Director
Telephone: +49 30 1663-2130

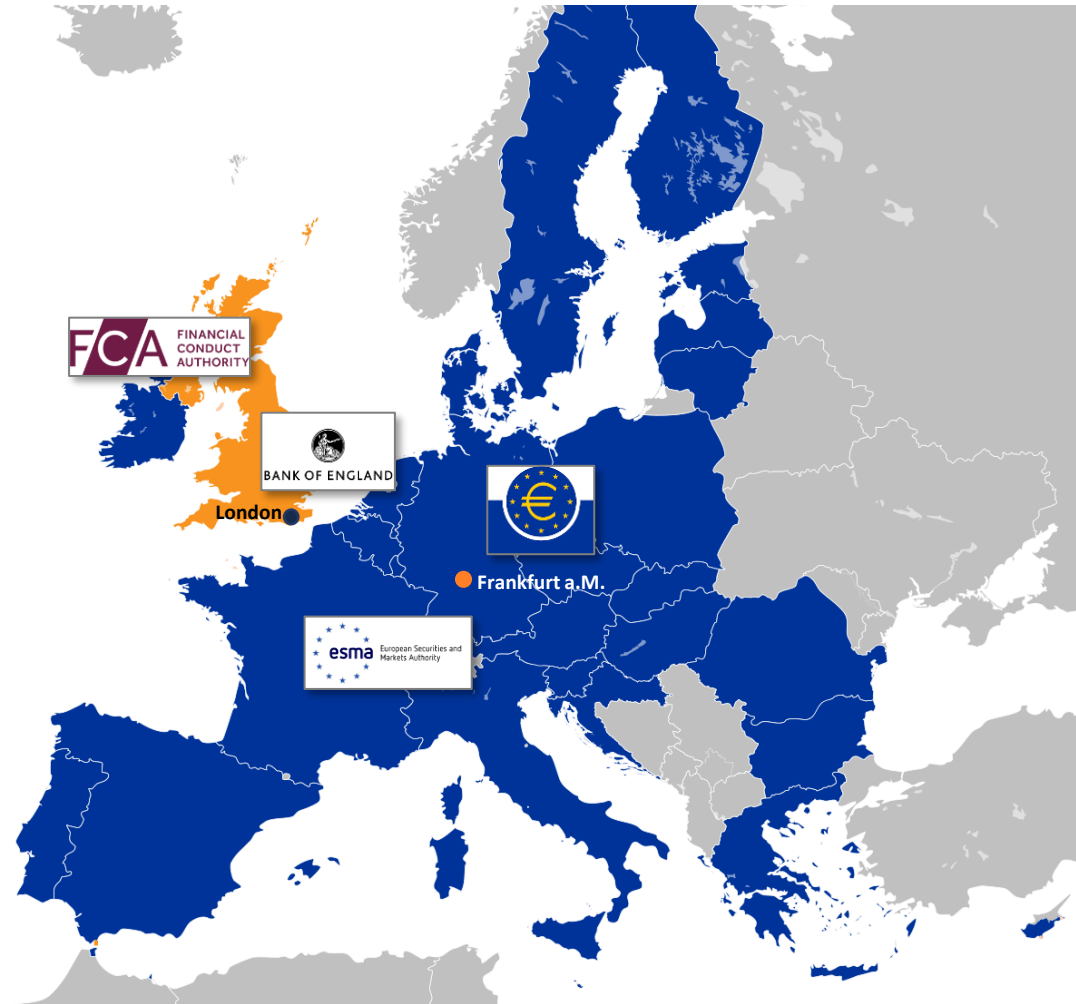
In summary, we believe there is a need for a comprehensive evaluation of the entire securitisation process, particularly for securitisations of portfolios which could be useful for the transformation. Isolated measures will not boost the securitisation market. In order to be able to overcome the challenges expected from the sustainable and digital transformation, we should be laying the foundations today, so we can make a contribution tomorrow. The specifics of the European markets need to be taken into account when doing so. The securitisation process must be made fit for the future, production costs need to fall and processes need to be optimised.

M
M
TH
MARKET

SPEED, SECURITY, SOLIDARITY

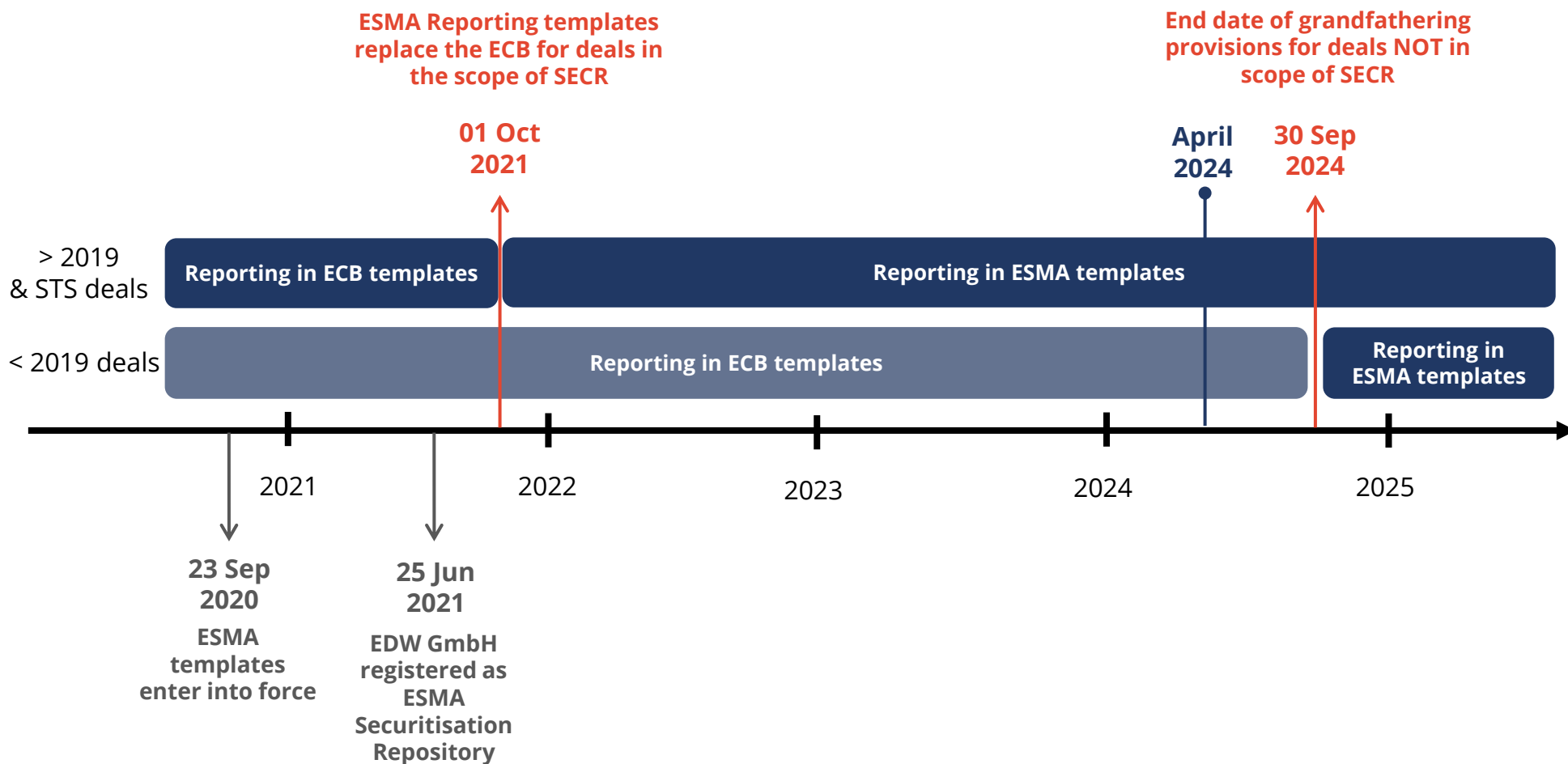
Securitization: Securitization acts as a unique link between credit and capital markets. In this sense, the securitization market offers significant potential. Increasing its utilization brings two key benefits: i) broadening and diversifying the pool of assets available for investment, and ii) unlocking banks' balance sheet capacity to facilitate additional financing. Moreover, the adoption of green securitization, whether through securitizing green assets or directing securitization proceeds towards green financing, holds promise as a significant contributor to the transition towards sustainability. Therefore, we advocate for reforms in the European securitization framework to enhance its accessibility and effectiveness.

REPOSITORY SOLUTIONS FOR THE UK AND EUROPE



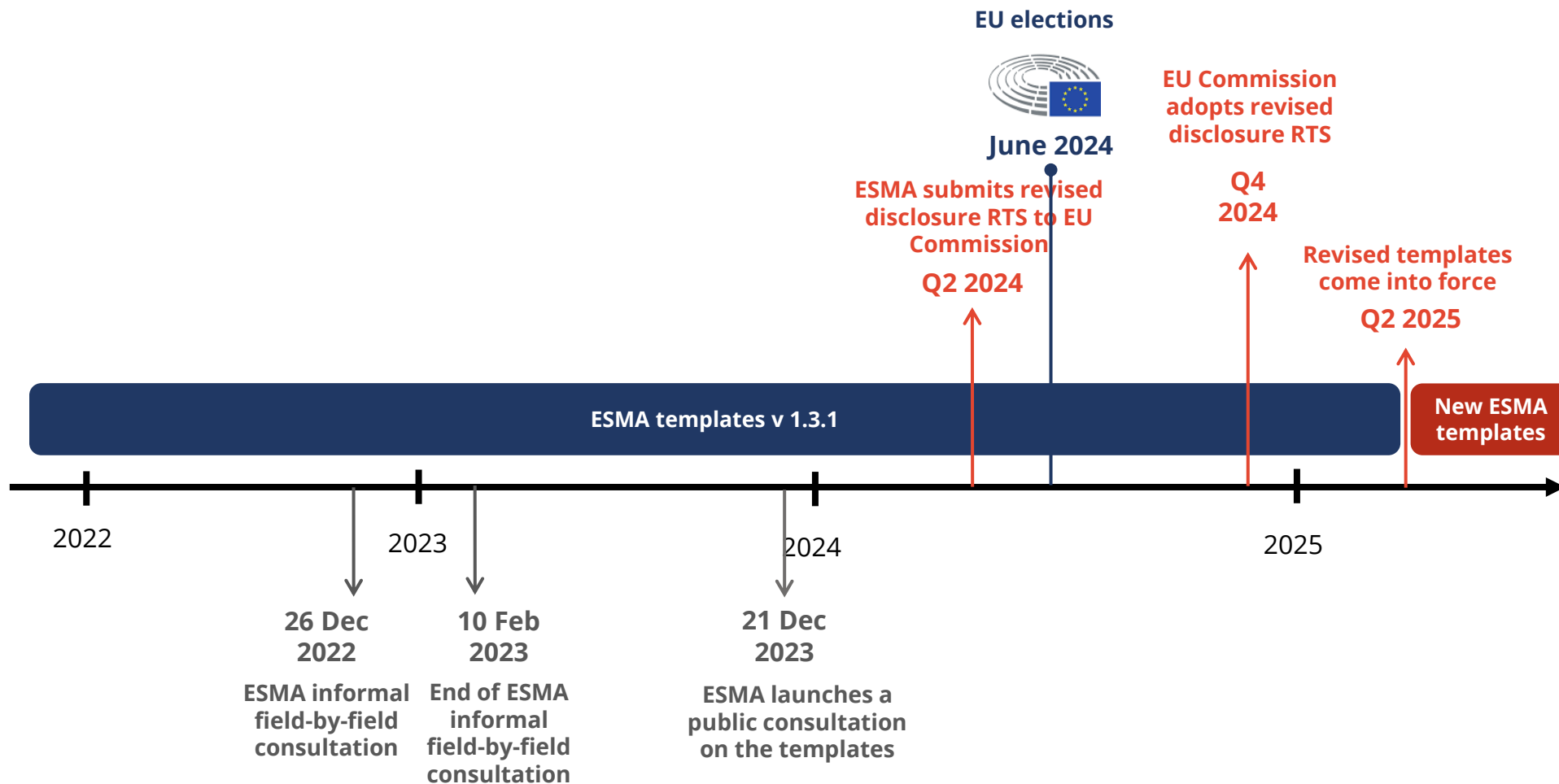
- European DataWarehouse (EDW) offers data repository solutions in the EU and the UK.
- EDW is registered as a securitisation repository under the Securitisation Regulation (EU)2017/2402 in the EU and the UK.
- EDW is registered as a secure website with the Bank of England to comply with its transparency requirements.
- EDW is registered as a data repository for the Eurosystem collateral framework pursuant to Guideline (EU) 2015/510.

CHANGES TO THE EUROSYSTEM'S LOAN-LEVEL DATA REQUIREMENTS



Source: Timeline is based on the information provided in the ECB [press release](#) as of 28 June 2021

ESMA'S REVIEW OF THE LOAN-LEVEL SECURITISATION DISCLOSURE TEMPLATES

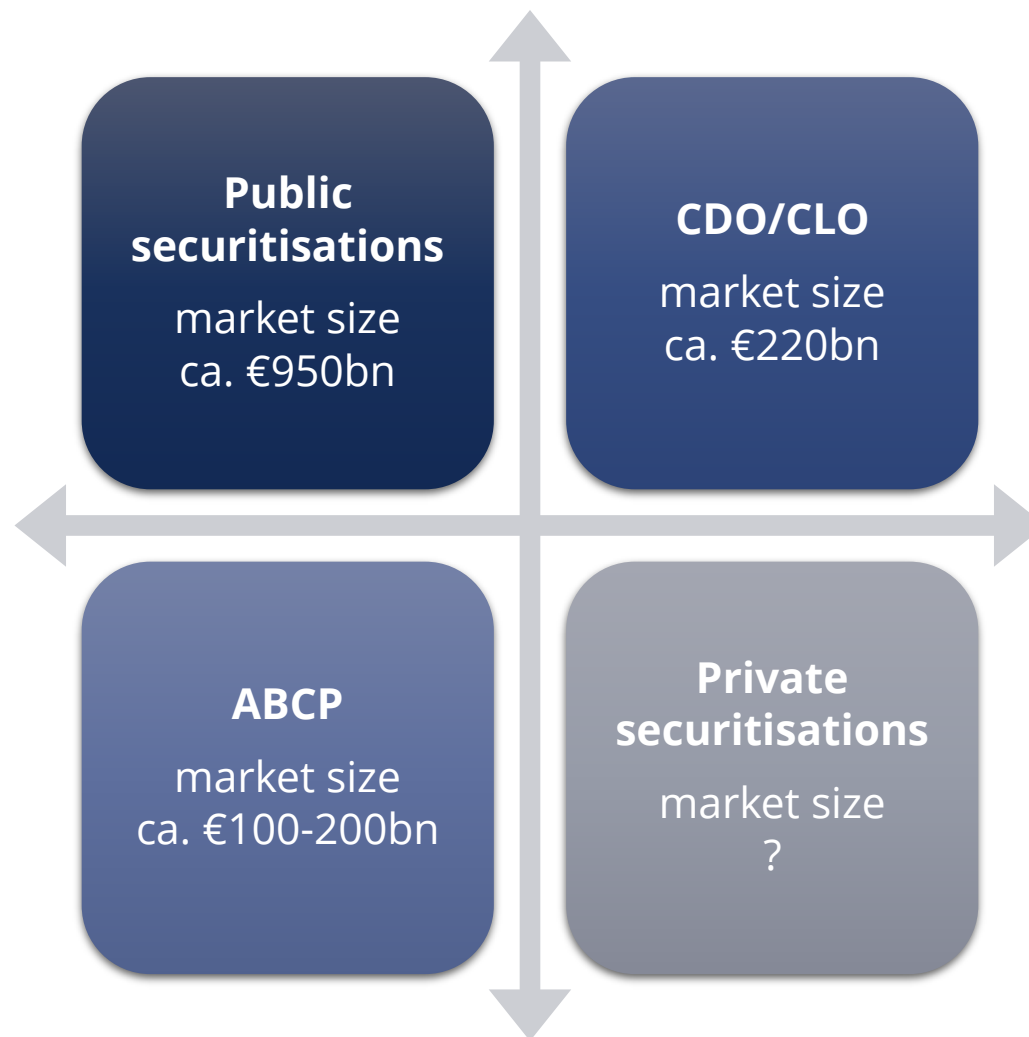


Source: Timeline is based on EDW estimates

ABS MARKET OVERVIEW

MARTIN KUHN, EUROPEAN DATAWAREHOUSE

EUROPEAN SECURITISATION MARKET



Sources: AFME, European DataWarehouse, TSI

EUROPEAN PUBLIC SECURITISATION MARKET 2014-2023



Sources: AFME Data Report

Outstanding 2023 - top 5

#1		€ 224.2bn
#2		€ 176.2bn
#3		€ 143.2bn
#4		€ 116.0bn
#5		€ 110.3bn

Outstanding 2015 - top 5

#1		€ 276.8bn
#2		€ 233.1bn
#3		€ 159.2bn
#4		€ 146.6bn
#5		€ 76.5bn

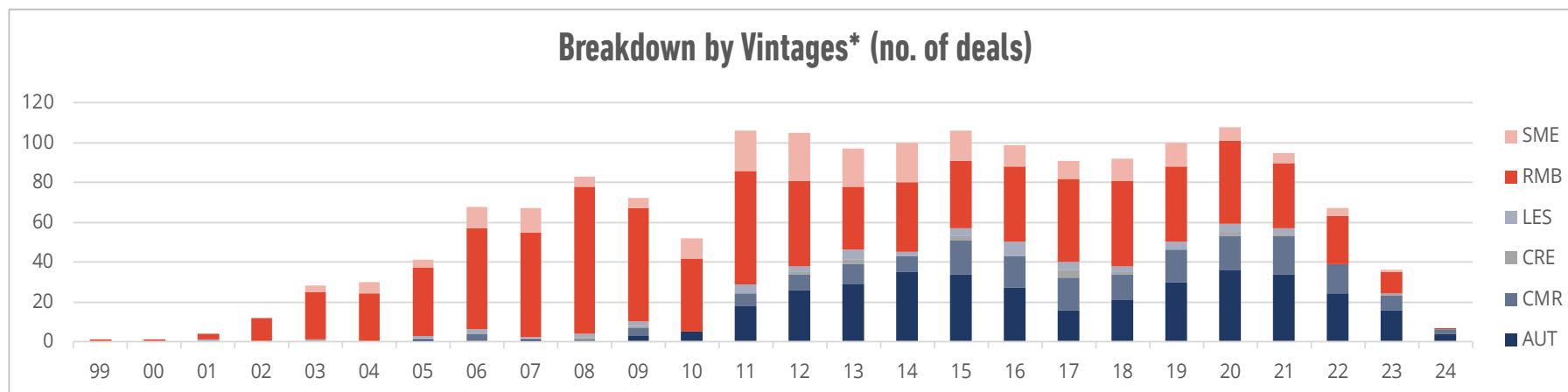
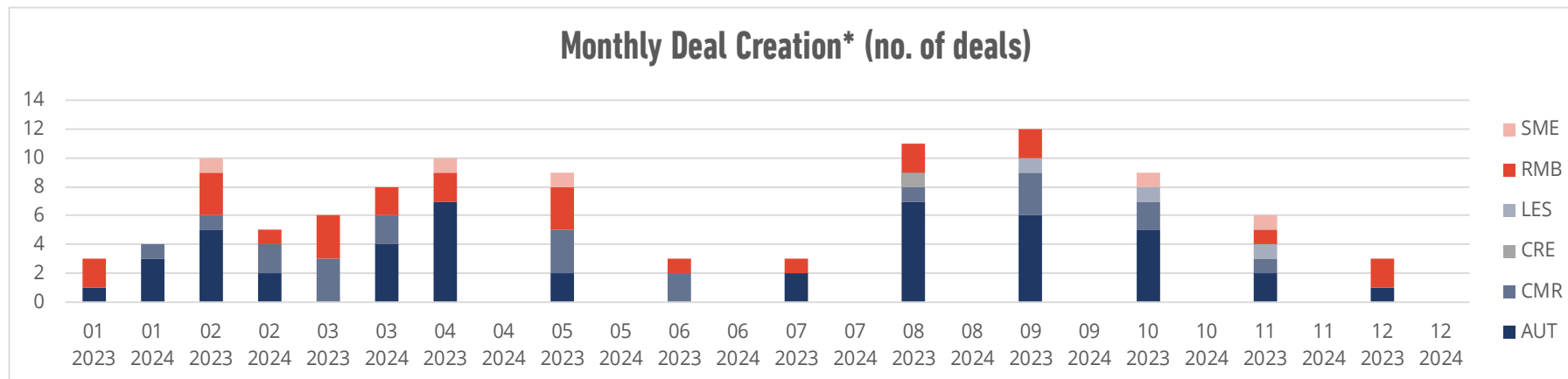
Asset class 2023 - top 5

#1	RMBS	€ 554bn
#2	SME	€ 117bn
#3	Consumer	€ 87bn
#4	Auto	€ 74bn
#5	CMBS	€ 33bn

Asset class 2015 - top 5

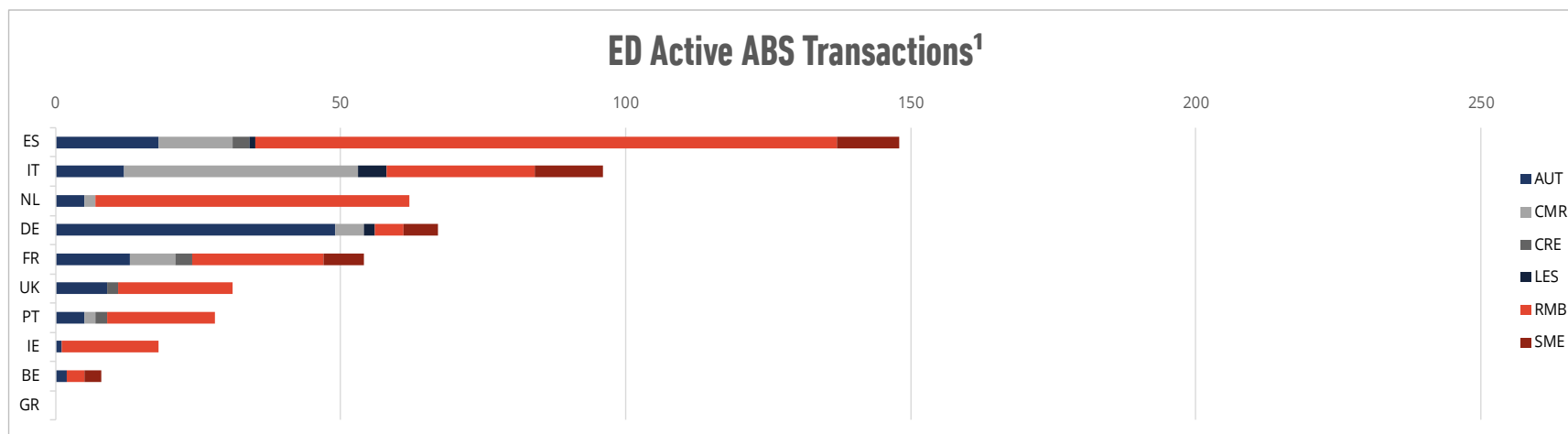
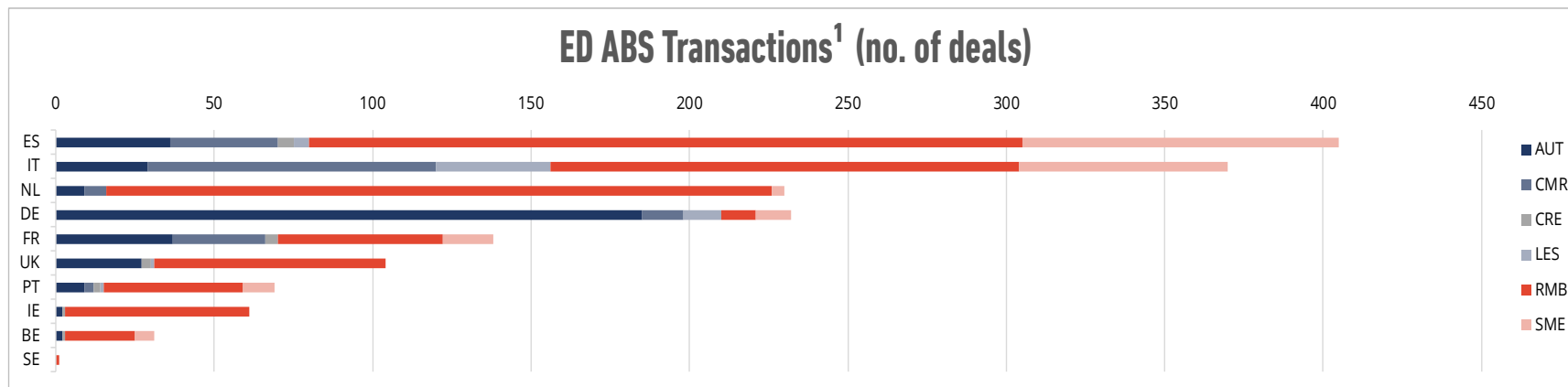
#1	RMBS	€ 767bn
#2	SME	€ 98bn
#3	Auto	€ 62bn
#4	CMBS	€ 53bn
#5	Consumer	€ 41bn

DATASET COMPOSITION AS OF 31 MAR 2024



Source: European DataWarehouse

DATASET COMPOSITION AS OF 31 MAR 2024

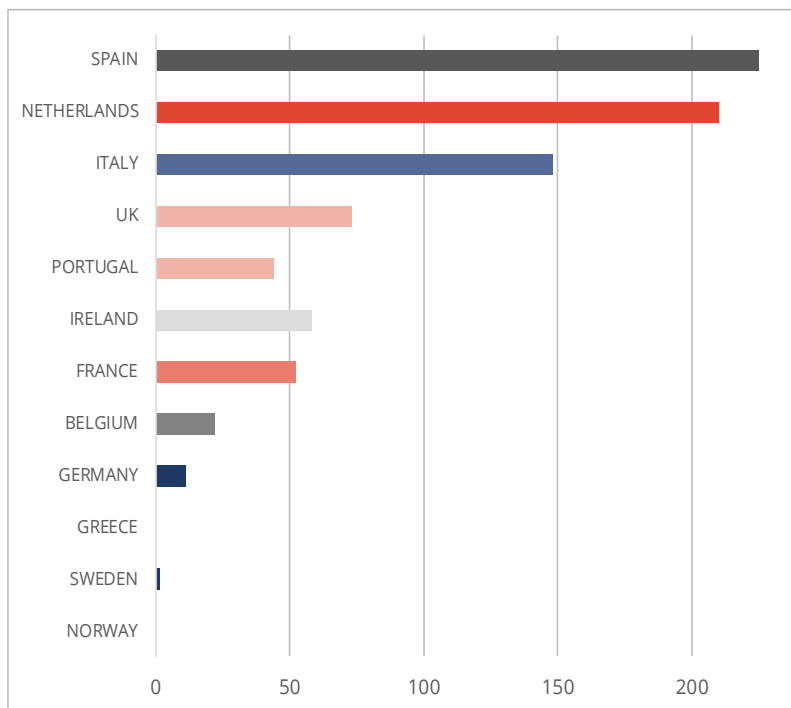


¹ Austria, Sweden, Norway, Finland and Luxembourg are not included in the chart

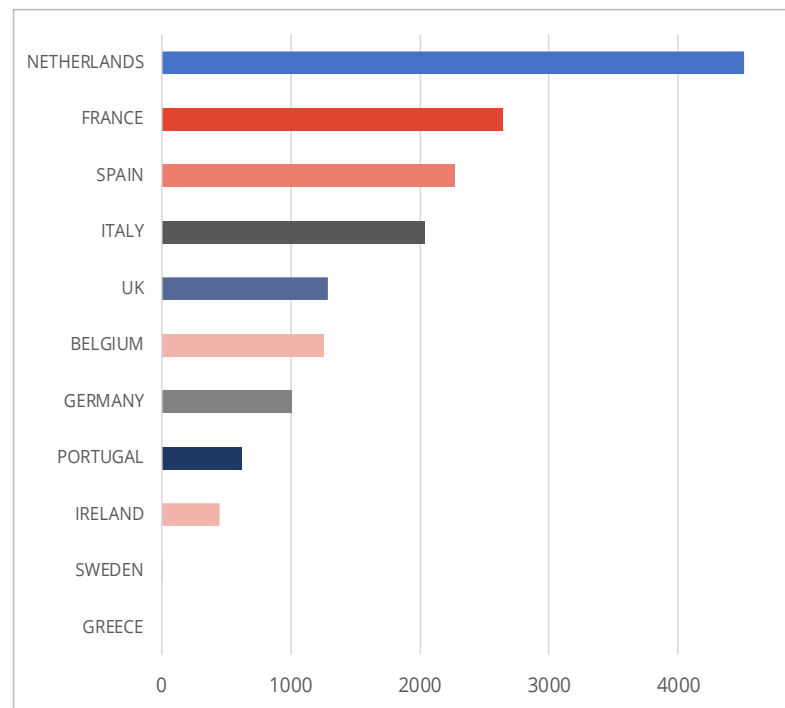
RMBS

A total of 783 RMBS Deals & 16.62mn loans or loan parts

DEALS



LOANS OR LOAN PARTS



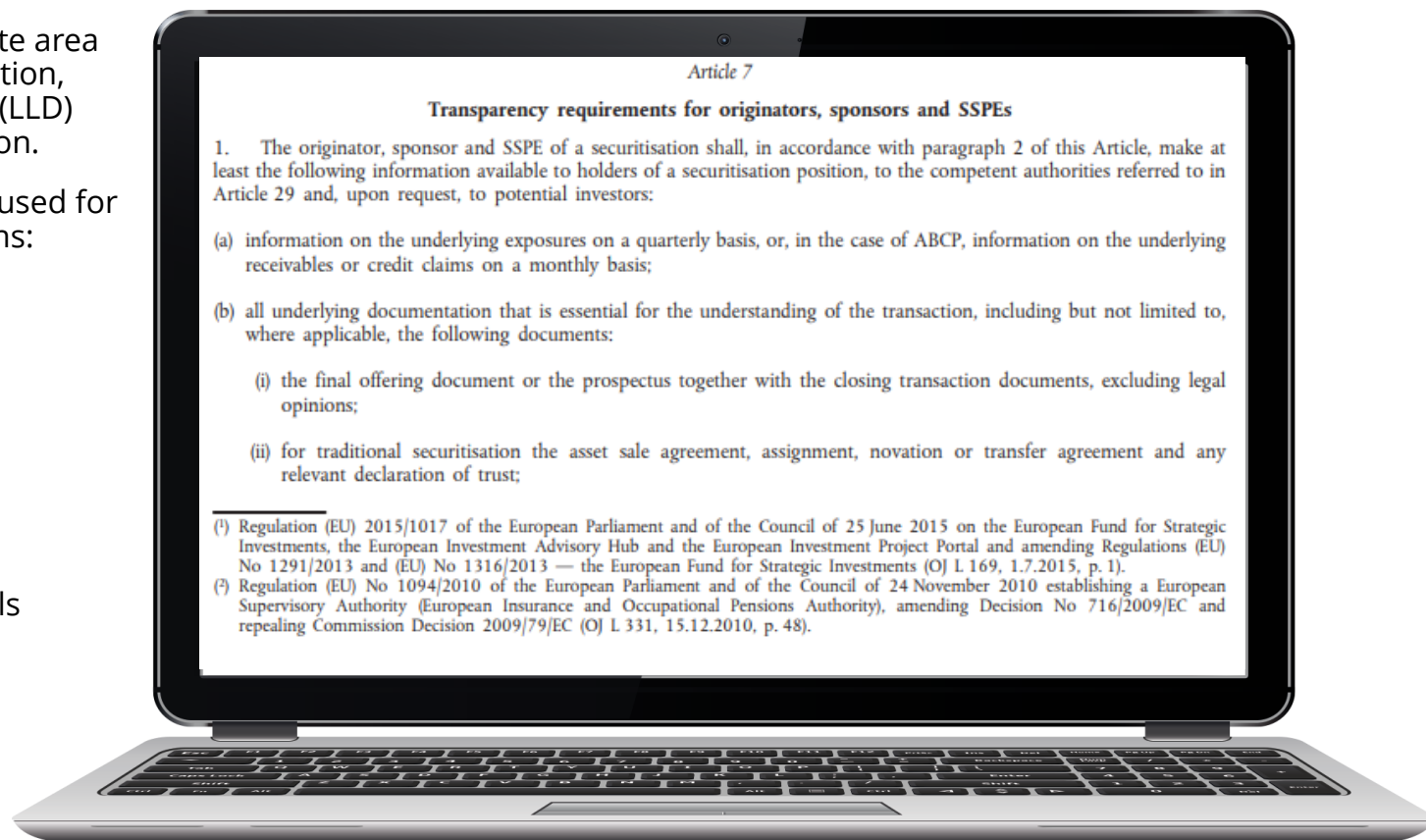
The loan count calculation is based on the total number of loans reported in the latest submission only for each transaction. All amounts in 000s (k)

PRIVATE ABS-TRANSACTIONS

PRIVATE TRANSACTION DISCLOSURE REQUIREMENTS

Private securitisation transactions use the EDW private area to comply with disclosure requirements under Art. 7 of the Sec. Reg.

- EDW implemented a private area solution to collect information, including Loan Level Data (LLD) and relevant documentation.
- The private area could be used for the following securitisations:
 - ABCP
 - Non-ABCP such as:
 - ABS
 - CLOs
 - NPL deals
 - Synthetic deals
 - Tranched cover deals



DISCLOSURE REQUIREMENTS

Everything you need to know about public securitisation reporting to a Securitisation Repository under the 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]	<table border="1"> <tr> <td>Investor report</td> <td rowspan="2">Common XML file to report [2] and [11]/[12] in a single XML file XML</td> </tr> <tr> <td>Inside Information or Significant Event</td> </tr> </table>	Investor report	Common XML file to report [2] and [11]/[12] in a single XML file XML	Inside Information or Significant Event
Investor report	Common XML file to report [2] and [11]/[12] in a single XML file XML			
Inside Information or Significant Event				

ADDITIONAL DISCLOSURE REQUIREMENT FOR 'PRIVATE' SECURITISATIONS

Article 7 (c) of Securitisation Regulation

where a prospectus has not been drawn up in compliance with Regulation (EU) 2017/1129 of the European Parliament and of the Council ("Prospectus Regulation")

a **transaction summary** or overview of the main features of the securitisation, including, where applicable:

(i) details regarding the structure of the deal, including the structure diagrams containing an overview of the transaction, the cash flows, and the ownership structure;

(ii) details regarding the exposure characteristics, cash flows, loss waterfall, credit enhancement, and liquidity support features;

(iii) details regarding the voting rights of the holders of a securitisation position and their relationship to other secured creditors;

(iv) a list of all triggers and events referred to in the documents provided in accordance with point (b) that could have a material impact on the performance of the securitisation position.

DISCLOSURE REQUIREMENTS – PUBLIC VS. PRIVATE

Differences between public and private securitisations

ESMA Reporting Templates	Public*	Private
Underlying exposures	✓	✓
Investor Report	✓	✓
Inside information/ Significant Event	✓	–

Disclosure requirements based on the RTS/ITS on operational standards for SR	Public* Securitisation Repositories (SR)	Private (exempted from reporting to SR)
XML format	✓	✓
XML Schema checks	✓	–
ESMA Scoring	✓	–
Content checks (validation rules)	✓	–
ND Thresholds	✓	–

*"Public" refers to a securitisation where a prospectus has been drawn up in compliance with Regulation (EU) 2017/1129 of the European Parliament and of the Council ("Prospectus Regulation")

PRODUCT TERMS – ADDITIONAL SERVICES

Increasing delegation to EDW

Initial Data mapping consultation

Review of client data tapes and initial mapping to ESMA templates

Required loan-level and investor report data

Consultation re data field definitions and usage of ND options

Custom converter

Initial data mapping consultation

Creation of a customised converter tool for loan-level data to produce ESMA templates from client data tapes

Ongoing converter support

LLD template production

Quarterly or Monthly production of ESMA compliant loan-level templates based on client data tapes

IR/SE template production

Quarterly or Monthly production of ESMA-compliant investor reports and significant events templates based on client or cash manager information

Full outsourcing

Full delegation of quarterly or monthly reporting and upload based on client data tapes

Cash Flow Model

Production of STS-compliant cash flow model in Excel

Customised model based on individual transaction characteristics

Notes:

All prices subject to applicable VAT

THE LATEST DEVELOPMENTS IN STS AND SYNTHETIC SECURITISATIONS

**MICHAEL OSSWALD, STS VERIFICATION
INTERNATIONAL (SVI)**



THE STS VERIFICATION PROCESS
– THE STRUCTURED PATH TO
YOUR SUCCESS.

Latest Developments on STS Securitisations

Michael Osswald

STS Verification International GmbH ("SVI")

European DataWarehouse Irish Workshop, 23 April 2024 (Dublin)

THE STS MARKET SEGMENT AND THE ROLE OF THE THIRD-PARTY VERIFIER

Simple, Transparent & Standardised (“STS”) Securitisations

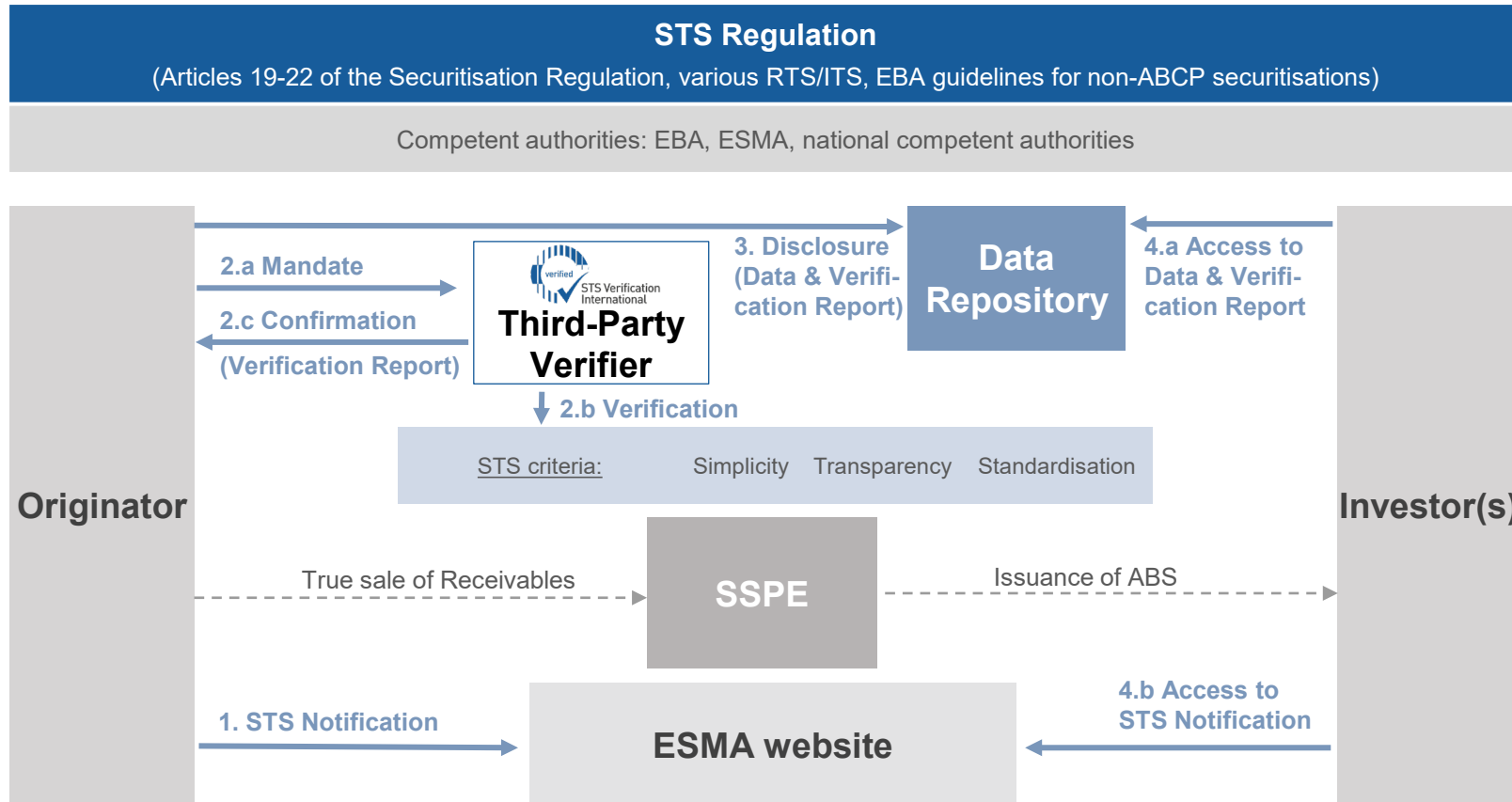
- As part of the European securitization framework, the STS regime has been established in 2019 as a first-class capital market segment with strict and uniform regulation
- The STS label offers access to the widest investor base possible
- Market standard for public securitization, widely used by private securitisations
- STS reduces the capital requirements for investors and originators (for retained senior tranches in synthetic transactions)

The Role of the Third-Party Verifier (“TPV”)



- A Third-Party Verifier can be appointed by the originator, the sponsor or the SSPE to assess, and, where applicable, verify compliance of a securitisation with the STS criteria
- The TPV ensures appropriate interpretation and consistent application of the STS criteria (incl. RTS/ITS and guidelines) during the structuring phase, thereby reducing liability risk for the transaction parties
- The TPV acts as first point of contact for questions and coordinated approach to the competent supervisory authorities

STS NOTIFICATION AND STS VERIFICATION (EXAMPLE OF NON-ABCP SECURITISATIONS)



VERIFICATION METHODS AND THE SVI VERIFICATION REPORT

Verification Methods: How are individual criteria checked?

- a) **Regulatory:** Certain STS criteria relate to supervisory mechanisms and regulatory aspects
- b) **Legal:** Reference to contractual obligations and structural features as laid down in the transaction documentation and legal opinion(s)
- c) **Due Diligence:** Written and verbal evidence based on due diligence presentations, credit & collection policies, Q&A with senior management and other relevant specific information
- d) **Data:** Verification on the basis of full data (e.g. performance history), verification on the basis of samples (e.g. AuP report), Cashflow model

SVI Verification Report

- Confirms compliance of a specific transaction with the STS criteria and how SVI has come to such conclusion
- Available as Preliminary (at deal announcement) and Final Verification Report (at closing) for Originator and Investors
- For examples see: www.sts-verification-international.com/transactions

EXAMPLE OF THE VERIFICATION OF AN STS CRITERION

Article 20 (8): Homogeneity

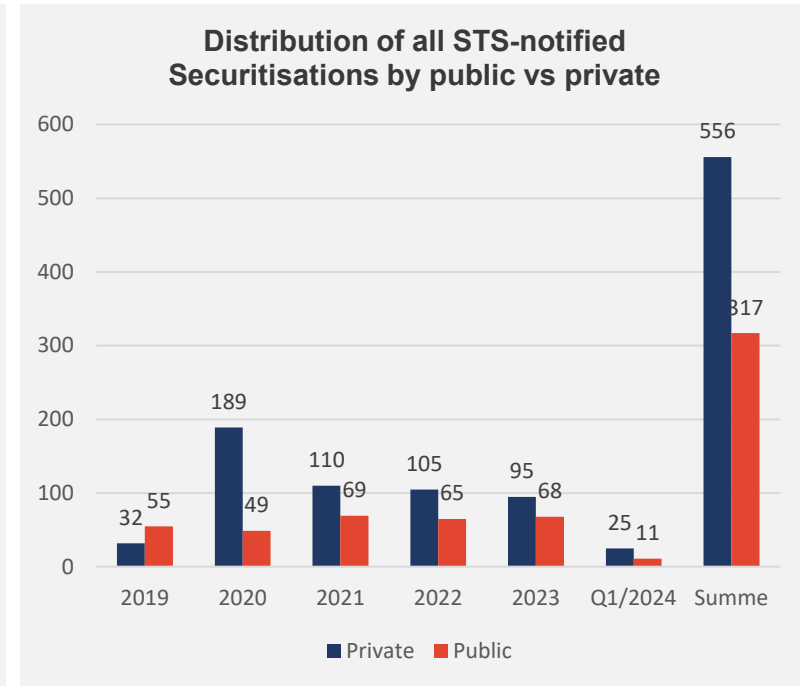
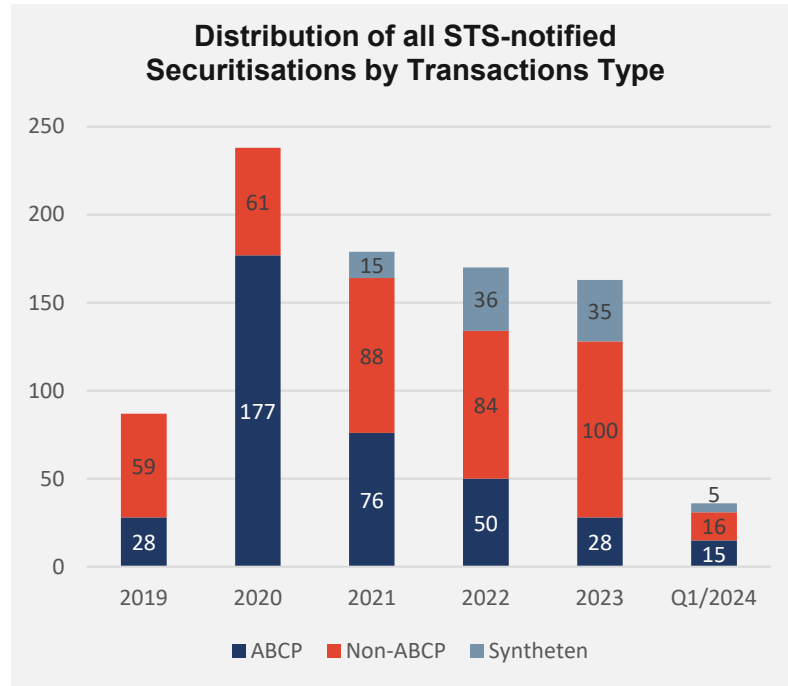
„The securitisation shall be backed by a pool of underlying exposures that are homogeneous in terms of asset type [...].“

RTS on Homogeneity (Commission Delegated Regulation (EU) 2024/584):

- Article 1: Homogeneity of underlying exposures
- Article 2: Homogeneity Factors

Subcriterion	Check	Verification Method
Asset Type	Do the underlying exposures fall into one of the asset types according to Art. 1 of the Commission Delegated Regulation (EU) 2019/1851 on Homogeneity?	Transaction Documentation (e.g. RPA, Eligibility Criteria)
Homogeneity Factor	Which homogeneity factor has the seller chosen?	<ul style="list-style-type: none"> a) Transaction Documentation (e.g. RPA, Eligibility Criteria) b) AuP Report (e.g. check of jurisdiction based on the sample)
Underwriting & Servicing Standards	Were the underlying exposures originated in accordance with consistent underwriting standards and serviced using consistent servicing standards?	<ul style="list-style-type: none"> a) Due Diligence b) Underwriting and Servicing Policy

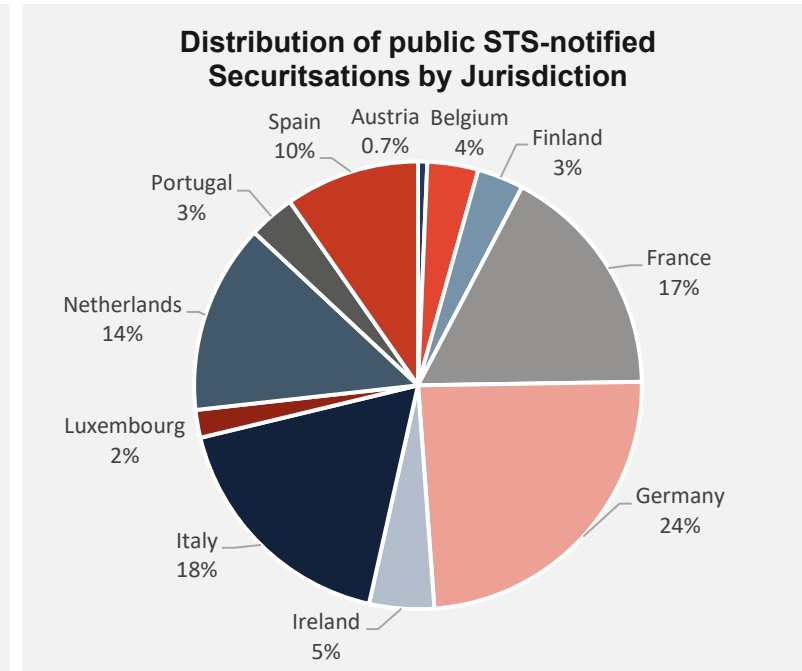
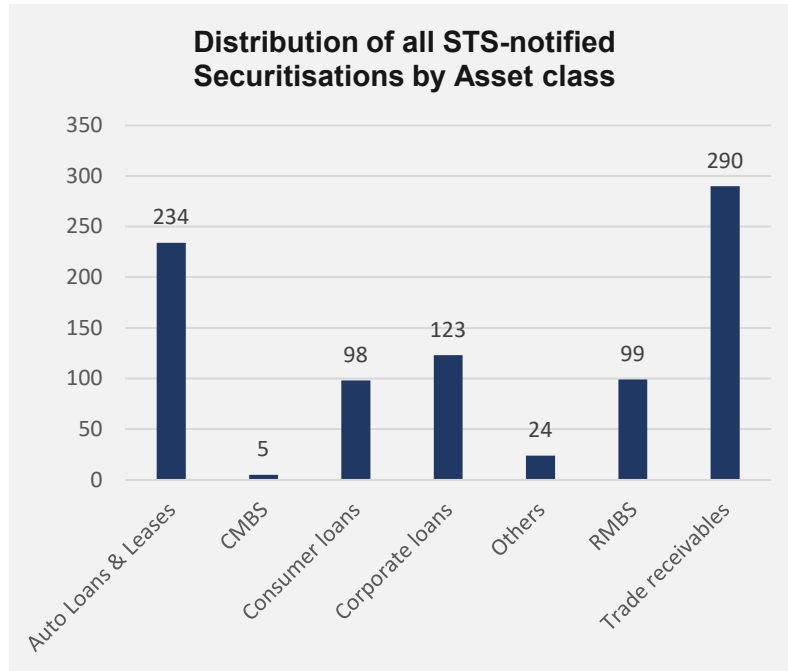
DEVELOPMENT OF THE MARKET FOR STS TRANSACTIONS (2019 – Q1/2024)



Period 1.1.2019 – 31.03.2024; Source: ESMA Website, SVI

- Since the introduction of the STS segment, approx. 873 securitisations have been notified as STS-compliant (408 non-ABCP vs. 374 ABCP vs. 91 Synthetic, 317 public vs. 556 private transactions)
- STS-compliant transactions can be notified to ESMA as either “public” or “private” transactions, with resulting vastly different level of disclosure

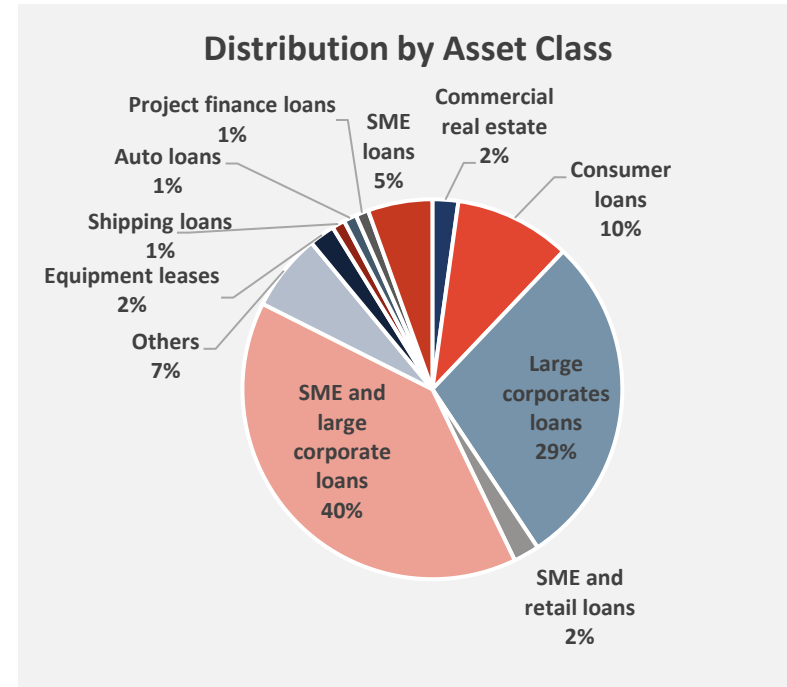
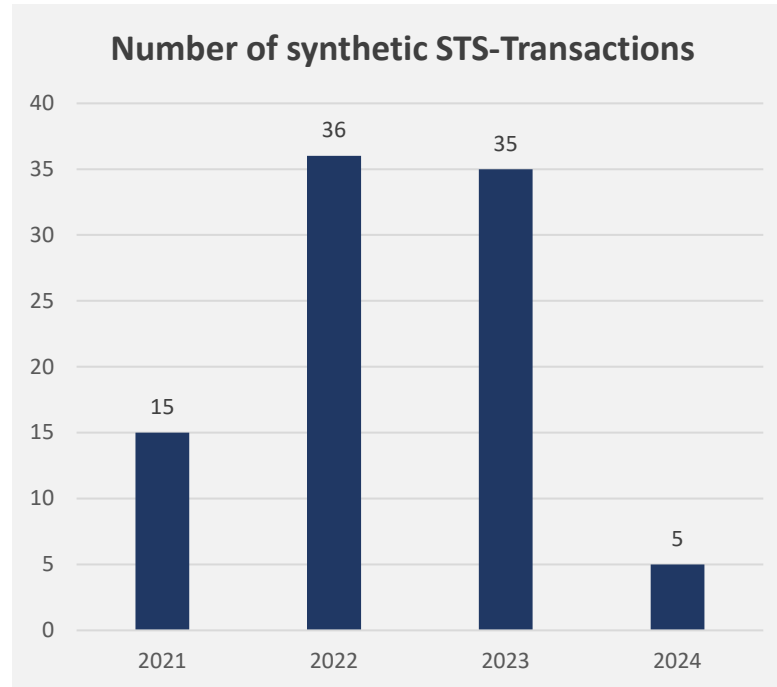
DEVELOPMENT OF THE MARKET FOR STS TRANSACTIONS (2019-Q1/2024) (CONTINUED)



Period 1.1.2019 – 31.03.2024; Source: ESMA Website, SVI

- The categorisation according to asset classes reflects the various asset types as proposed by the STS notification template provided by ESMA for traditional and synthetic securitisations, respectively

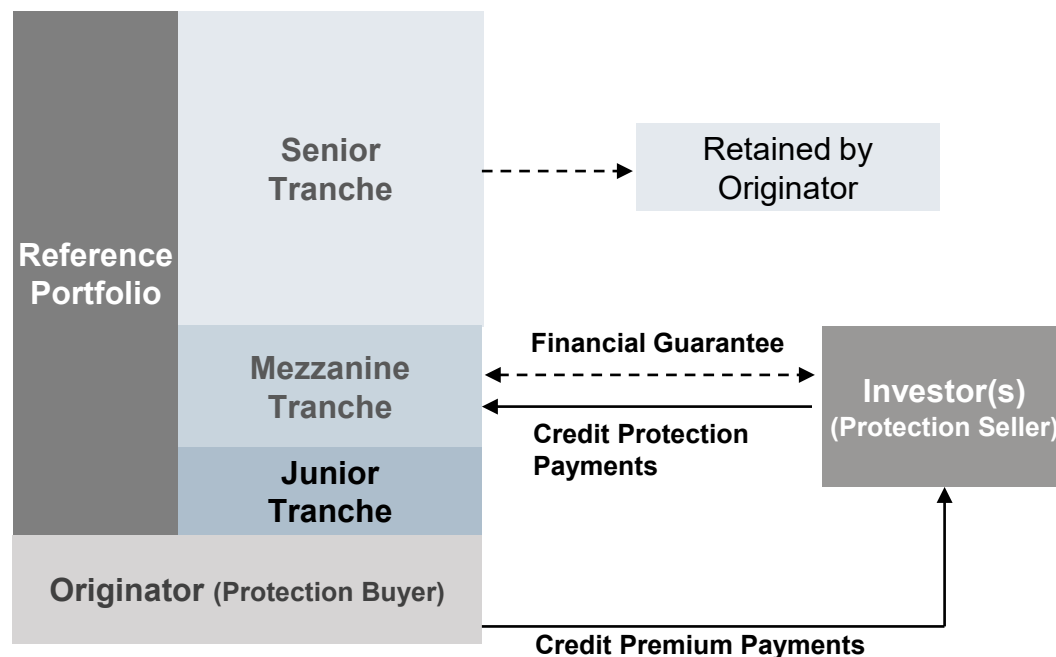
OVERVIEW ON THE MARKET FOR STS SYNTHETIC ON-BALANCE-SHEET TRANSACTIONS (2021 – Q1 2024)



*Period 6.4.2021 – 31.03.2024; Source: ESMA Website, SVI

- While April 2021 marked the start of the market for synthetic STS transactions, the two following years have seen a robust development of the market which continues in 2024 YTD
- Large Corporate loan portfolios and mixed portfolios of SMEs and Large Corporate loans are the predominant asset classes for STS on-balance-sheet transactions

STS FOR SYNTHETIC SECURITISATIONS – MAIN STRUCTURES - UNFUNDED



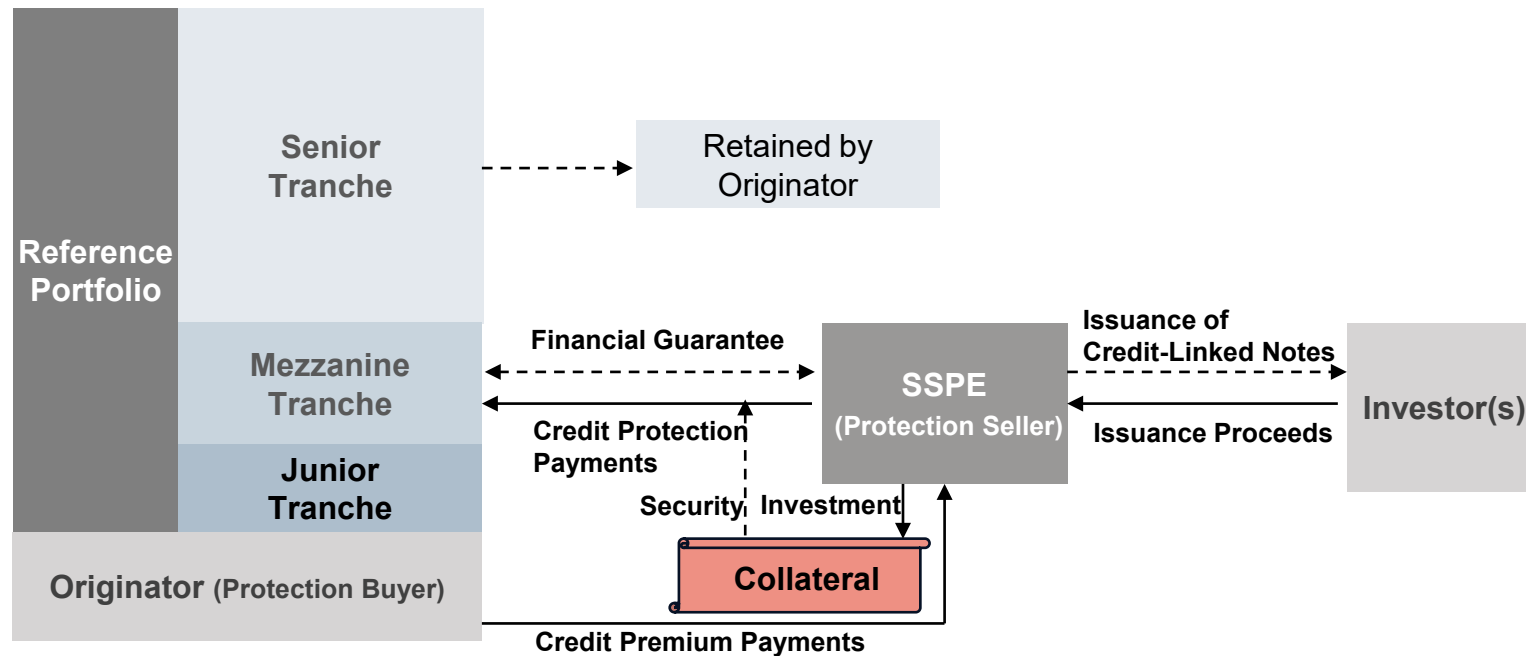
■ Protection Seller

- Must be 0% risk weighted counterparty
- Usually one of the multilateral development banks (EIF, EBRD, IFC, etc.)

■ Collateral

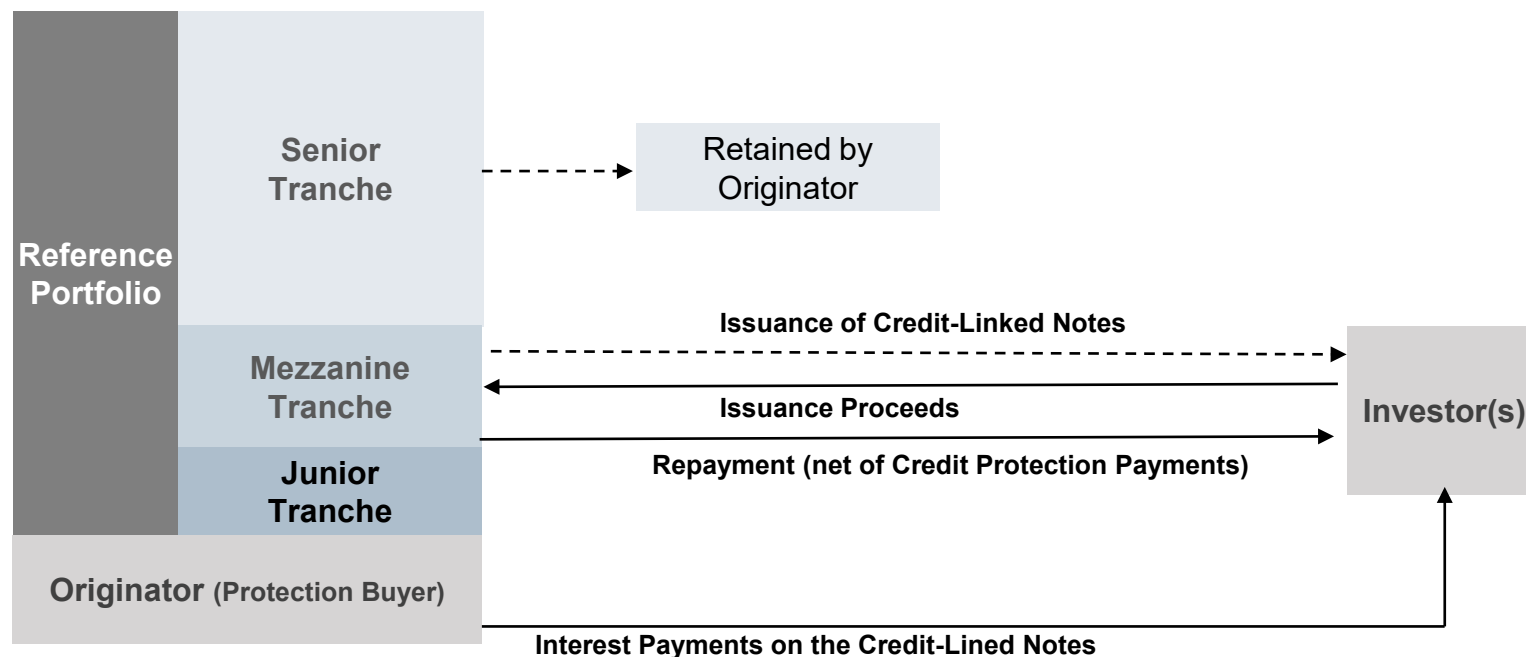
- No Collateral requirements under STS

STS FOR SYNTHETIC SECURITISATIONS – MAIN STRUCTURES – FUNDED WITH SSPE



- **Collateral** in the form of
 - 0% risk weighted debt securities
 - Cash on deposit (at Originator if min. CQS 2; at third-party bank if min. CQS 3)
- **Investors**
 - Usually private investors

STS FOR SYNTHETIC SECURITISATIONS – MAIN STRUCTURES – DIRECT ISSUANCE OF CLNs



■ Structure

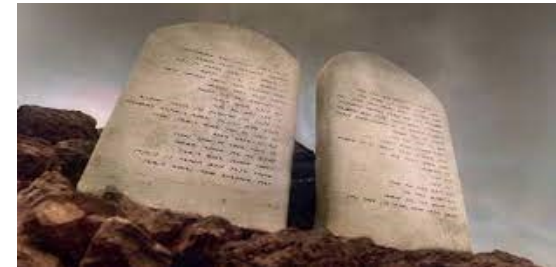
- Direct issuance of Credit-Linked Notes by the Originator
- The Terms & Conditions include provisions to allocate losses on the protected tranche(s) to the Credit-Linked Noteholders

■ Collateral

- No Collateral requirements under STS

STATUS QUO OF THE REGULATORY FRAMEWORK FOR STS SECURITISATIONS


Pieces of level 2 and level 3 legislation that apply directly or indirectly to STS securitisations:




- ✓ ■ **RTS on performance-related triggers**
 - Published on 22 March 2024 in the European Journal, effective from 11 April 2024
- ✗ ■ **RTS on exposure value of synthetic excess spread**
 - Final draft dated 24 April 2023
- ✗ ■ **EBA Guidelines on synthetic on-balance securitisations**
 - Consultation paper dated 21 April 2023, followed by extensive consultation between ESAs and market participants during summer 2023 (finalised guidelines expected for Q2 2024)
- ✓ ■ **RTS on the homogeneity of STS securitisations**
 - Published on 15 February 2024 in the European Journal, effective from 6 March 2024
- ✗ ■ **RTS on disclosure templates**
 - ESMA has been asked to improve the functioning of the transparency requirements
 - Consultation paper dated 21 Dec 2023, with consultation open until 15 March 2024
- ✓ ■ **RTS on STS securitisations-related sustainability disclosures**
 - Published by the European Commission on 5 March 2024, but not yet published in the European Journal

STATE OF PLAY FOR SUSTAINABLE SECURITISATIONS

■ Initial Securitisation Regulation (as of 12 Dec 2017):

- 
- Article 22 (4) SECR: Requirement for the originator to publish „**environmental performance data** of the assets financed by residential mortgage loans and auto loans & leases as part of the transparency requirements for non-ABCP, provided that such information is available to the originator and captured in its IT systems
 - Reporting of energy performance certificate values for vehicles and buildings, respectively
 - Expanded also to synthetic securitisations, see Article 26d (4) SECR

■ Amended Securitisation Regulation (as of 31 March 2021):

- 
- Article 22 (4) and 26d (4) SECR: Option for the originator to „**publish the available information related to the principal adverse impacts of the assets financed by underlying exposures on sustainability factors.**“
 - Main benefit: alignment with the sustainability-related disclosures in financial services under the Sustainable Finance Disclosure Regulation („SFDR“)
 - Publishing of certain climate and other environmental indicators:
 - RMBS: Share of underlying exposures secured by energy-inefficient real estate assets, greenhouse gas emissions generated by real estate assets, share of real estate assets not having waste sorting and waste recycling facilities etc.
 - Auto ABS: Share of underlying exposures secured by vehicles that exceed a certain CO2 emission level, are non-compliant with Euro 6 emission limits, have a low recyclability percentage or have a low battery recycling rate
 - Publishing of one or more social, human rights, anti-corruption and anti-bribery indicators

STATE OF PLAY FOR SUSTAINABLE SECURITISATIONS

(CONTINUED)

■ European Green Bond Standard (EuGB) (as of 20 Dec 2023, applicable from Dec 2024):

- Securitisation bonds are eligible for the EuGB, provided that a prospectus has been published
- Use of proceeds approach at the level of the originator rather than SSPE to avoid that the securitised portfolio needs to be 100% green and enable the originator to use the proceeds to finance green EU taxonomy-compliant investments
- Additional disclosures of the environmental performance of the underlying assets to provide investors an insight on the green vs. brown composition of the securitised portfolio in terms of share of (i) exposures that finance Taxonomy-eligible economic activities, (ii) Taxonomy-aligned exposures, and (iii) exposures that fail to meet the ‘Do no significant harm’ objectives
- Publishing, pre-issuance, of (i) a CapEx plan and a EuGB Factsheet, and post-issuance, of (iii) EuGB Allocation reports and (iv) a EuGB Impact report
- Mandatory use of external verifier to check compliance with pre- and post-issuance requirements



	Non-ABCP	Synthetics	ABCP
Environmental performance data	RMBS (STS) Auto ABS (STS)	RMBS (STS) Auto ABS (STS)	Not applicable
Principal adverse impacts on sustainability factors	RMBS (STS) Auto ABS (STS)	RMBS (STS) Auto ABS (STS)	Not applicable
European Green Bond Standard	All asset classes (STS & non-STS) if a prospectus is in place	Not applicable	Not applicable

SUSTAINABLE FINANCE PROJECTS: ENGAGE FOR ESG & GREEN AUTO SECURITISATION

MANUEL LOPES, EUROPEAN DATAWAREHOUSE

UPDATE ON CLIMATE DISCLOSURE FOR SECURITISATION

Box 3 – Climate change risk disclosure for securitisation

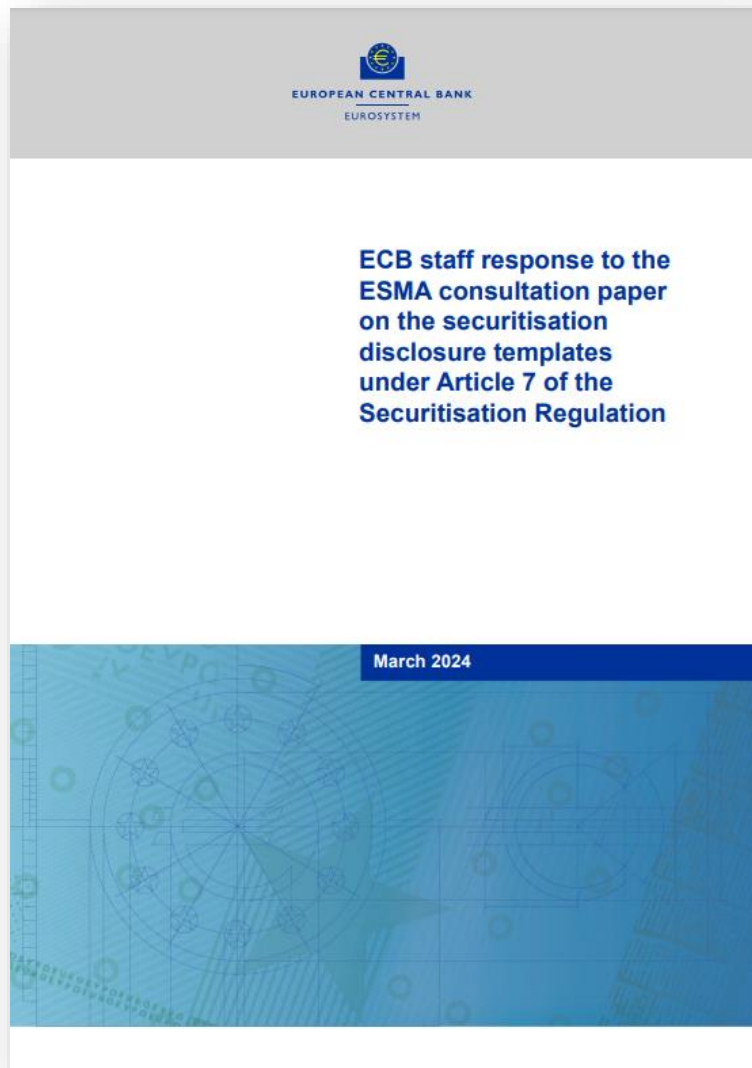
In March 2023, the ECB and the ESAs issued a joint statement¹⁵ on disclosure on climate change for structured finance products, in line with the authorities' commitment to contribute to the transition towards a more sustainable economy based on their respective mandates. The statement notes that structured finance products currently fall outside the scope of the most recent ESG disclosure standards, although some types of underlying assets contribute in a non-negligible extent to GHG-emissions. Consequently, there is a potential need to align the securitisation disclosure framework with the evolving standards in sustainability disclosure. This CP, therefore, presents an opportunity to engage with market stakeholders to explore the feasibility of integrating climate-related metrics, evaluating their associated advantages and costs.

Based on the results of this consultation, ESMA will explore the possibility of incorporating climate-related metrics into the disclosure framework. This holds true regardless of whether the overall outcome of the consultation leans toward streamlining or enriching the disclosure templates. This approach underscores ESMA's commitment to providing investors and other stakeholders with valuable insights into emerging risks associated with securitisation products, including climate-related risks.

Source: ESMA Consultation Paper on the Securitisation Disclosure Templates

- Structured finance products are outside the scope of the most recent ESG disclosure standards.
- In its Consultation Paper, ESMA commits to exploring the possibility of incorporating climate-related metrics into the disclosure framework.
- Of particular relevance is the physical risk associated with the collateral.
- Most exposed to climate change risk are real estate, corporates, and cars.

UPDATE ON CLIMATE DISCLOSURE FOR SECURITISATION



The ECB proposes a set of metrics that align with other EU regulatory criteria, such as the EU taxonomy or SFDR disclosure requirements, with the aim of harmonising the reporting burden for originators.

1. Primary energy demand (kWh/m² per year)
2. Issuance date of the EPC
3. Information on tailpipe emissions for vehicles (gCO₂/km)
4. Annual primary energy consumption of properties
5. Taxonomy metrics and scope 1, 2 and 3 emissions
6. Transaction-level information for green ABSs



The ENGAGE Templates Version 1.0: EU Taxonomy Compliance for Mortgages



Co-funded by the
European Union



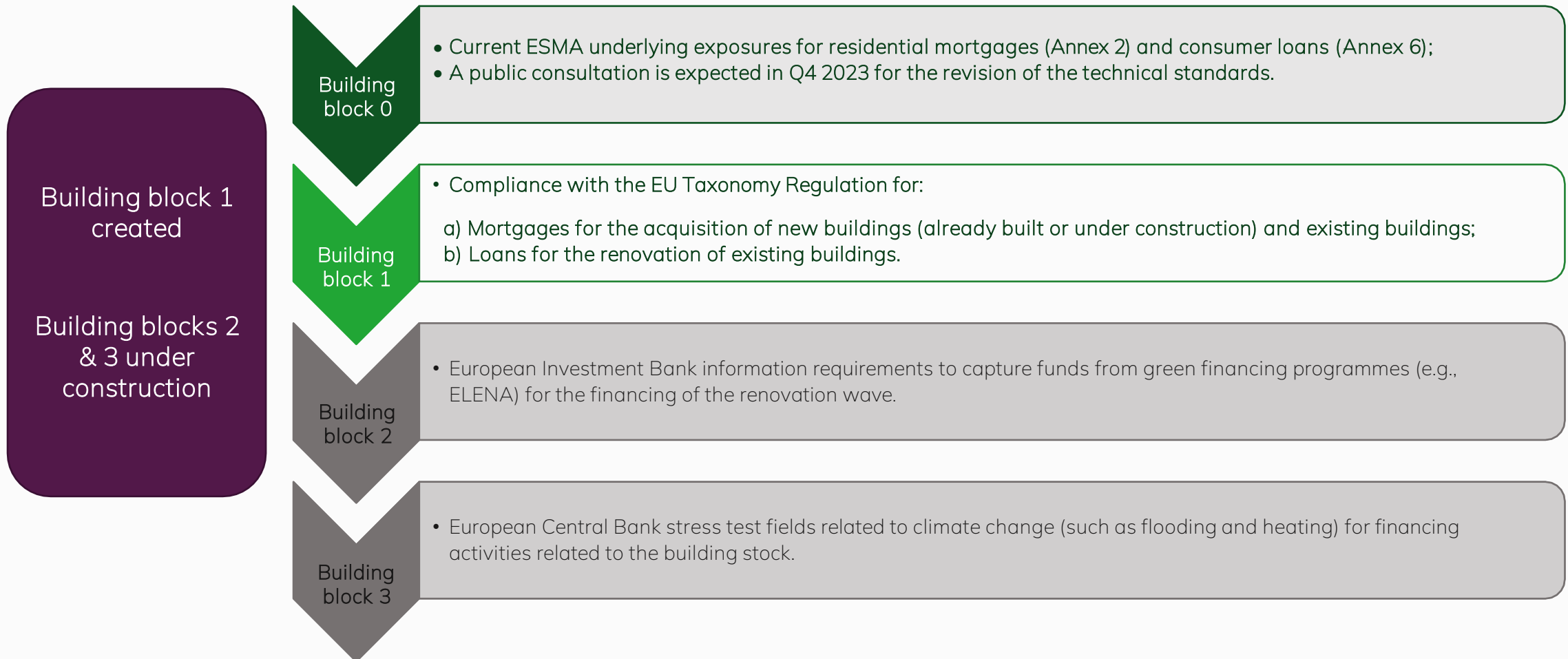


The ENGAGE for ESG initiative

- The ENGAGE for ESG initiative aims to contribute to the goals of the EU Green Deal, namely, to the activation of sustainable investments in the building sector, by promoting ESG transparency for residential mortgages and home renovation loans.
- The ENGAGE Templates 1.0, released in November 2023, include data elements that allow financial institutions to disclose the alignment of their mortgages with the EU Taxonomy requirements in line with the Substantial Contribution Criteria of the Climate Delegated Act for the economic activities of acquisition and ownership of real estate, as well as the minimum safeguards.
- The Templates will also enable the assessment of the degree of sustainability for mortgages and the classification of investments for certain mortgages as “sustainable” according to the EU Taxonomy.
- The Templates will be updated and expanded over the coming years to incorporate the most relevant European sustainability regulations. They will be operationalised through the ENGAGE Portal, a dedicated IT infrastructure currently under development.
- All institutions are invited to test the Templates and the Portal upon request to engage4esg@eurodw.eu



ENGAGE Templates Structure

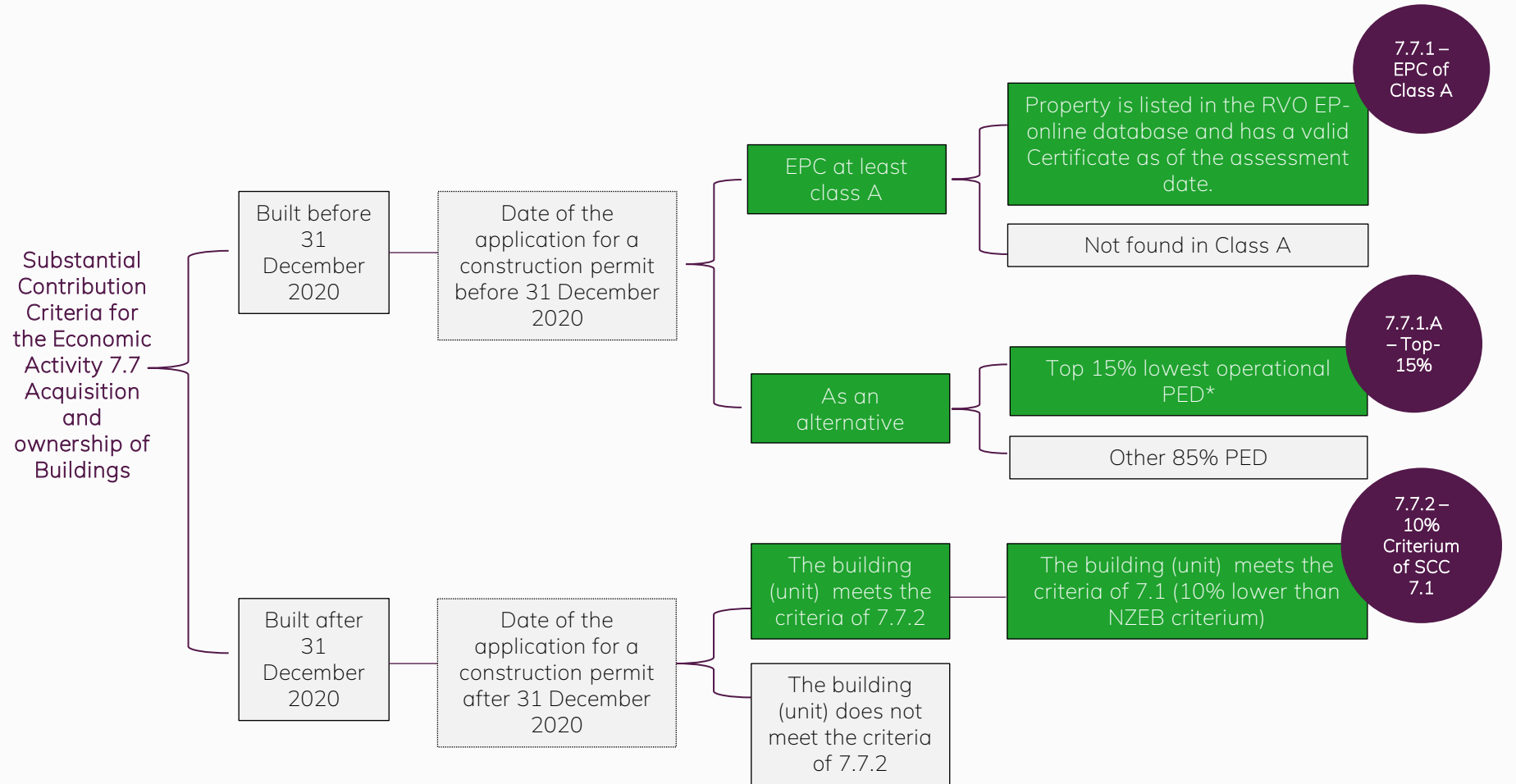




The ENGAGE Templates: summary

When developing **version 1.0** of the ENGAGE Templates, the ENGAGE consortium has considered:

- ✓ The ENGAGE Templates are **an add-on to existing market best practices**
- ✓ ENGAGE Templates are **scalable**. Meaning that if in the first phase the focus is on the EU Taxonomy, other elements can be incorporated at a later timeframe.
- ✓ **Continuous improvement and innovation:** The framework is designed to facilitate continuous improvement and innovation. This includes mechanisms for gathering and incorporating user feedback, as well as staying up-to-date with technological advancements and industry best practices.



The EU Taxonomy is the common denominator of many sustainable finance regulations



ENGAGE Templates: SCC 7.7.1

Section	NACE	Substantial contribution to Climate Change Mitigation of Annex I	Footnote
7.7 Acquisition and ownership of buildings	L68	1. For buildings built before 31 December 2020, the building has at least an Energy Performance Certificate (EPC) class A.	Not Applicable

Interpretation:

- At the reporting or assessment date the EPC of the building unit should be of Class A.
- The application date of the construction permit is needed to assess if the building is built before 31 December 2020.
- An EPC of Class A is needed (A, A+, A++, A+++, A++++ also satisfies this condition).
- A certificate should be present with a valid validity date, as of the assessment date, irrespective of the methodology.



Field Code	Field Name
RREL1	Unique Identifier
RREL3	New Underlying Exposure Identifier
RREL5	New Obligor Identifier
RREL6	Data Cut-Off Date
RREL30	Current Principal Balance
EREC1	General Activity Designation
EREC2	Construction Year
EREC3	Construction permit application date
EREC4	Energy Performance Certificate (EPC) Class
EREC5	Estimated or officially produced Energy Performance Certificate (EPC)
EREC6	Issuance date of most recent available Energy Performance Certificate (EPC) registration
EREC7	Energy Performance Certificate (EPC) Validity Length

Key considerations:

- The application date of the construction permit is needed to assess if the building is built before 31 December 2020. For some it is clear that the building was built before 31 December 2020.
- Note Answer 104 of the Q&A: EPC methodologies differ per country or sometimes within a country. Some jurisdictions use energy demand instead of energy consumption. As long as it is an official EPC, this does not matter.



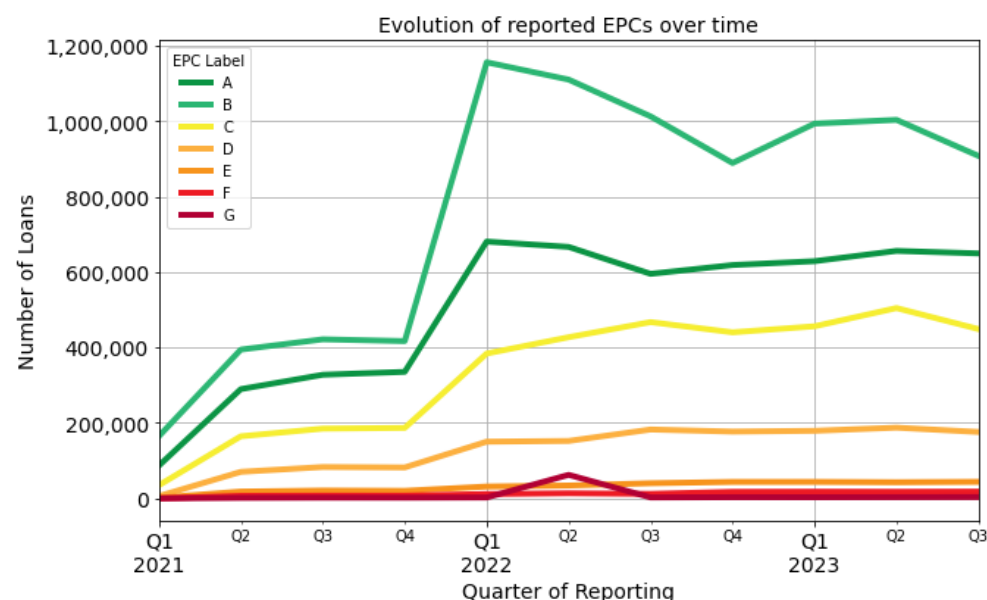
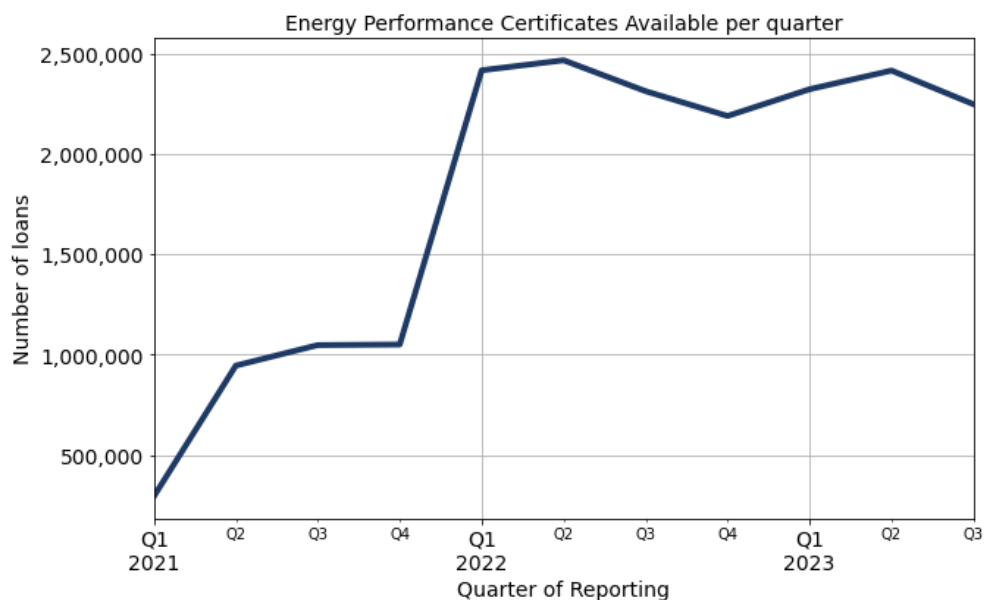
How to ENGAGE as a Pilot

1. Request the ENGAGE Templates: <https://forms.office.com/e/td14aYsMQS>
2. Set up a 30 minute one-on-one demo with the ENGAGE team
3. Sign the ENGAGE agreement to receive the sample data submission
4. Submit your ENGAGE Templates (mortgage sample file) into the ENGAGE Portal
5. Receive the ENGAGE report on EU Taxonomy compliance

AVAILABLE ENERGY PERFORMANCE CERTIFICATES IN EDW

The percentage of auto loans and leases with a valid EPC is increasing

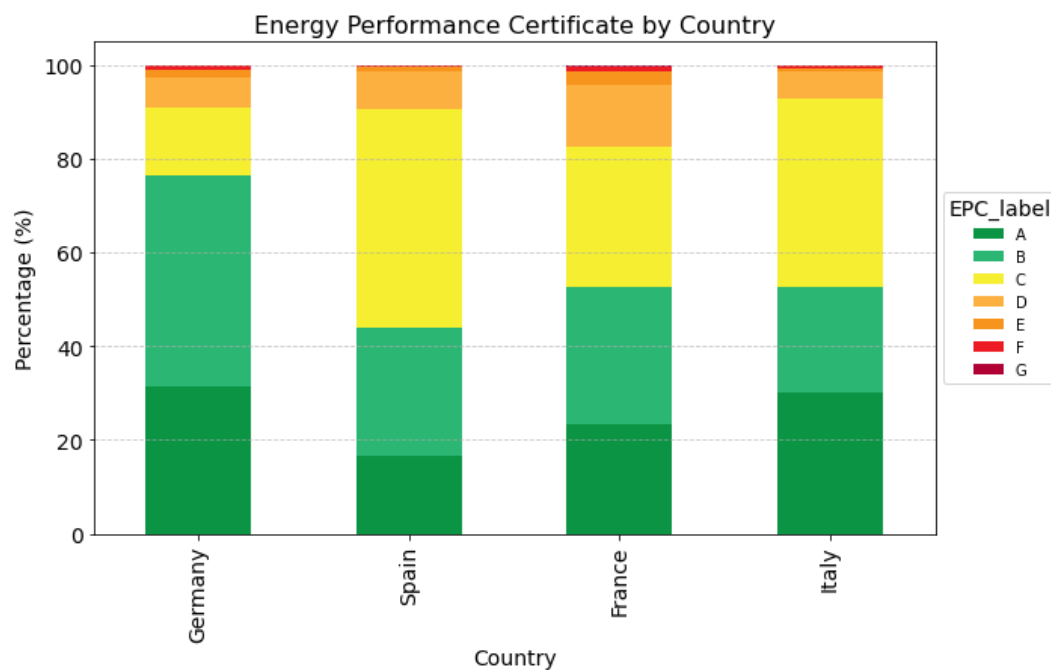
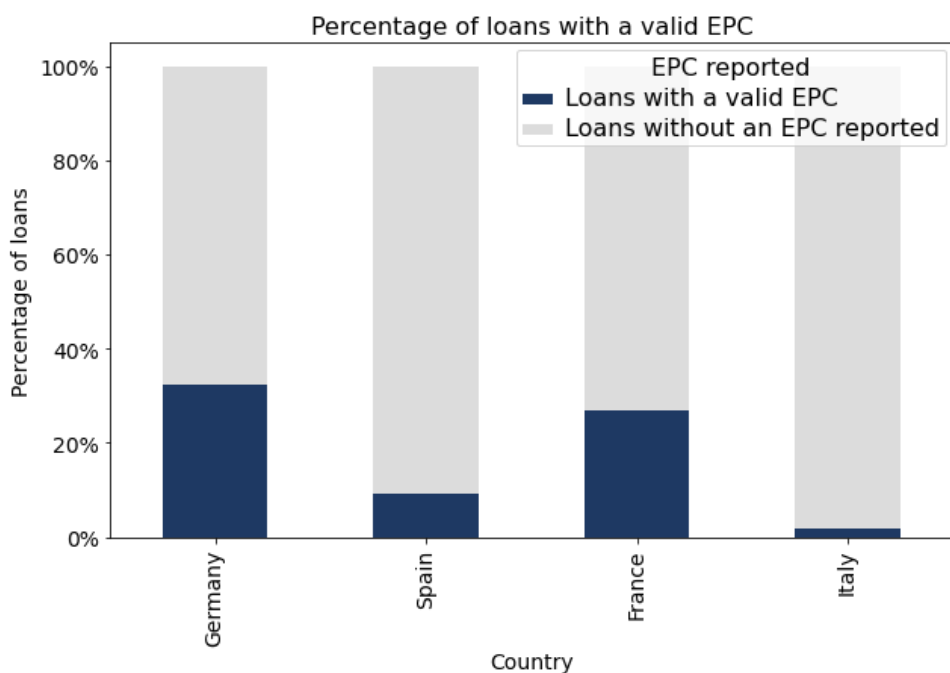
- The percentage of auto loans and leases with a valid EPC is steadily increasing over time - reaching 2.3 million in Q3 2023.
- The increasing trend is driven by cars with better EPC.
- We noticed an increasing trend from issuers to disclose EPC information and from investors to ask for sustainability related data.



Source: EDW data

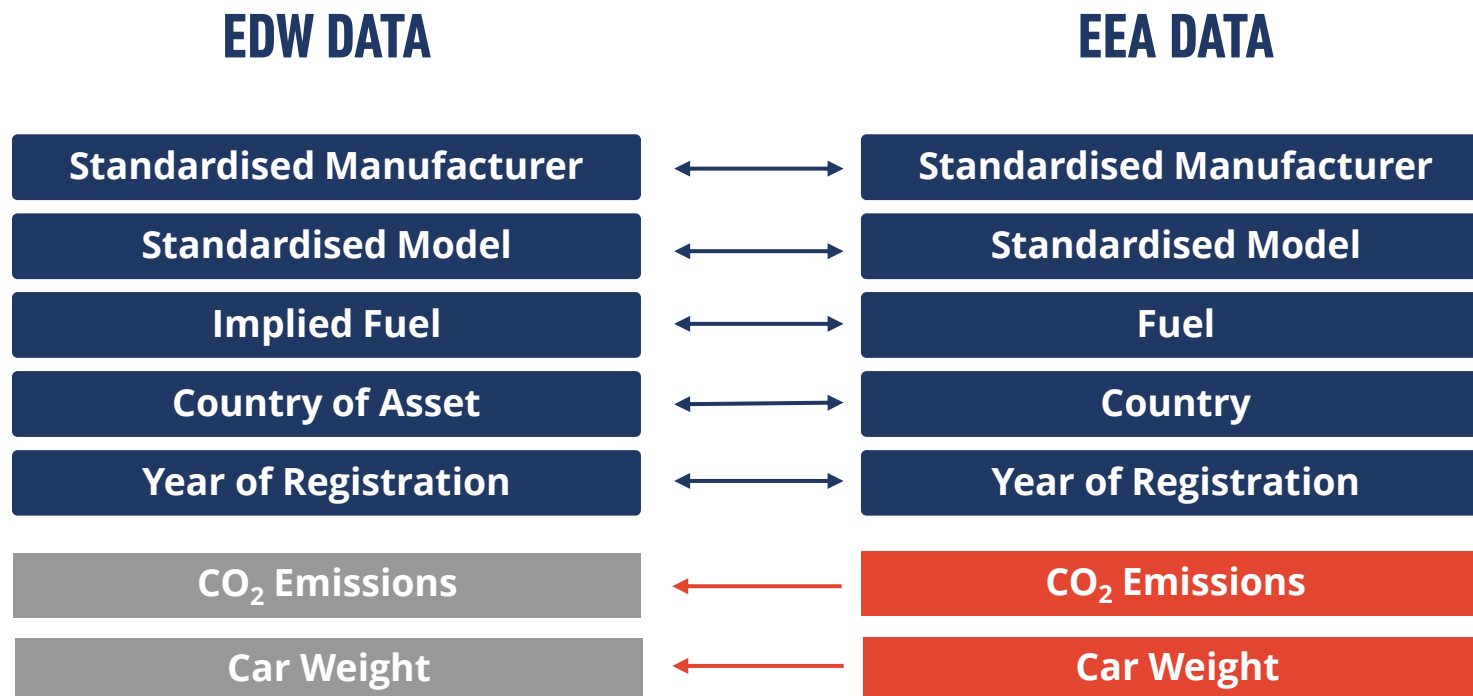
ENERGY PERFORMANCE CERTIFICATES ACROSS COUNTRIES

Germany has the highest amount of Energy Performance Certificates outstanding as of Q3 2023



ESTIMATING CO2 EMISSIONS FOR CAR LOANS/LEASES IN EDW DATA

Matching EDW data with European Environment Agency (EEA) data



Assumptions

- If fuel cannot be implied using available info, the average CO2 emissions of Petrol + Diesel cars for the manufacturer, model, year, and country are used
- For cases where only NEDC standard emissions are available, a factor of 1.2 is used to convert NEDC emissions to estimated WLTP emissions

DATA ENRICHMENT FOR AUTO LOAN PORTFOLIOS

EDW is working with selected partners to enrich their auto loan portfolio with CO2 emission estimates

Original Data		Adjusted Data				Enriched information
Manufacturer	Model	Manufacturer	Model	Fuel type	Year of manufacture	Co2 Emissions
TOYOTA	C-HR 1.8 HYBRID LOUNGE MY20	TOYOTA	C-HR	Hybrid	2020	87 g/km
TOYOTA	C-HR 1.8 HYBRID 122CV ACT MY21				2021	87 g/km
TOYOTA	COROLLA 1.8 H STYLE MY19	TOYOTA	COROLLA	-	2019	110 g/km
TOYOTA	COROLLA 1.8 H ACTIVE MY19					110 g/km

- The algorithm allows for manufacturer and model standardisation
- Relevant information (such as CO2 emissions) are estimated based on manufacturer, model, and year of manufacture
- NB: estimates cannot be used for ESMA reporting purposes as per the Q&A published in February 2023

CO₂ emissions from new passenger cars

CO2 emissions from new passenger cars registered in EU27, Iceland (from 2018) and Norway (from 2019) - Regulation (EU) 2019/631.

Data table explorer | Dashboard

Search term

Current filters applied: 4 [Reset filters](#)

Status: Provisional x Registration year: 2021 x Manufacturer name(Match: any) TOYOTA x Commercial name(Match: any) C-HR x

ID	Country	Vehicle family identification...	Pool	Manufacturer name (EU st...	Manufacturer name (OEM ...	Manufacturer name (MS r...	Type approval number	Type	Variant	Version	Make	Commercial name
57576220	MT	IP-0098-JT1-1	MAZDA-SUBARU-SUZUKI-TOYOTA	TOYOTA	TOYOTA MOTOR EUROPE NV SA		E6*2007/46*0338*02	AX1T	ZYX11	ZYX11RAHXKBW	TOYOTA	C-HR
57576280	MT	IP-0098-JT1-1	MAZDA-SUBARU-SUZUKI-TOYOTA	TOYOTA	TOYOTA MOTOR EUROPE NV SA		E6*2007/46*0338*02	AX1T(EU,M)	ZYX11(H)	ZYX11R-AHXKBW(2E)	TOYOTA	C-HR

DEAL REPORT – LATEST UPDATE

DEAL REPORT (1)

EXECUTIVE SUMMARY

Issuance Date 2023-04-20

Revolving Period End Date -

	2023-12-31	2023-09-30
Outstanding Balance of the Underlying Assets	498,837,495.17	508,991,015.71

Current Waterfall Type of Amortisation Sequential

Triggers in the Period Not Breached

	2023-12-31	2023-09-30		2023-12-31	2023-09-30
WA Term to Maturity	277.92	280.53	WA Seasoning	34.77	32.22
WA Floating Rate	6.33	6.33	WA Fixed Rate	2.20	2.20
Amount Reinvested in the Period	0	0			

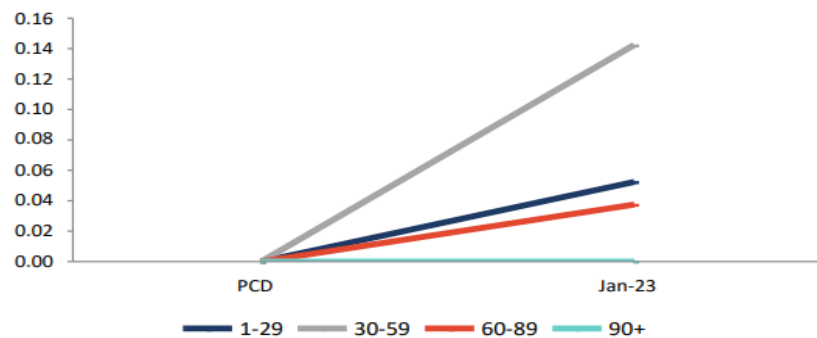
	2023-12-31	2023-09-30		2023-12-31	2023-09-30
Principal Collections*	10,174,274.02	12,300,275.88	Interest Collections*	3,216,839.84	3,320,394.39
Prepayments*	5,516,233.73	7,155,764.39	Recoveries*	0	0
Unpaid Principal Deficiency Ledger	0	0	Excess Spread of the Period*	0	0

* Amounts refer to the reporting period.

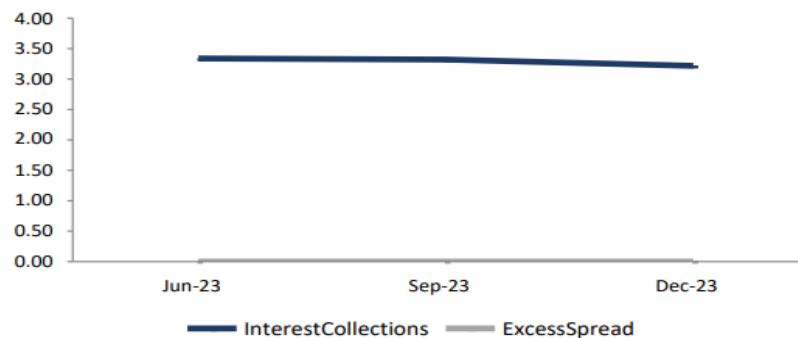
DEAL REPORT (2)

OVERVIEW

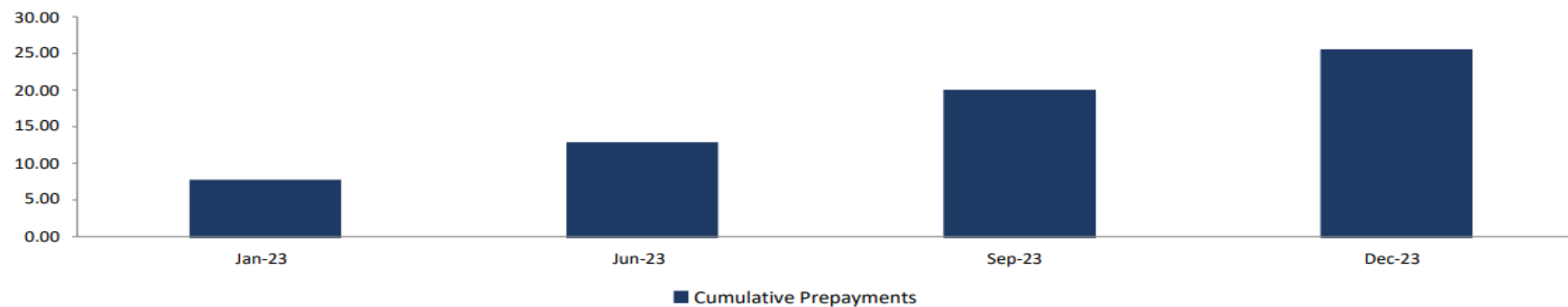
Days in Arrears (% Current Balance)



Interest Collections and Excess Spread (mn)



Cumulative Prepayments (mn)



DEAL REPORT (3)

BOND REPORT

	A	B	C	D	E	R
ISIN	XS2605909527	XS2605910459	XS2605911002	XS2605911184	XS2605911697	XS2605914790
Type	Soft Bullet	Soft Bullet	Soft Bullet	Soft Bullet	Soft Bullet	Soft Bullet
Currency	EUR	EUR	EUR	EUR	EUR	EUR
Original Balance	471,056,000	25,211,000	14,596,000	7,961,000	2,653,000	1,000,000
Current Balance	439,129,117.80	25,211,000	14,596,000	7,961,000	2,653,000	1,000,000
Issue Date	2023-04-20	2023-04-20	2023-04-20	2023-04-20	2023-04-20	2023-04-20
Maturity Date	2061-07-20	2061-07-20	2061-07-20	2061-07-20	2061-07-20	2061-07-20
IPD	2024-01-22	2024-01-22	2024-01-22	2024-01-22	2024-01-22	2024-01-22
Paym.Freq	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly
Current Coupon (%)						
Margin / Spread (%)	4.84	5.72	6.47	7.97	9.97	0
Current Int. Rate Floating	-	-	-	-	-	-
Step Up/Dn Coupon	-	-	-	-	-	-
Step Up/Dn Date	2026-10-20	2026-10-20	2026-10-20	2026-10-20	2026-10-20	-
Coupon Floor (%)	-	-	-	-	-	-
Coupon Cap (%)	-	-	-	-	-	-
Current Int. Rate Index	Euribor	Euribor	Euribor	Euribor	Euribor	-
Next Call Date	2026-10-20	2026-10-20	2026-10-20	2026-10-20	2026-10-20	2026-10-20
Next Put Date	-	-	-	-	-	-
Pool Factor (%)						
Curr.Attch Point (%)	11.73	6.77	3.91	2.34	1.82	0
Orgl.Attch Point (%)	11.24	6.49	3.74	2.24	1.74	0
Curr. Cred Enhcmnt (%)	12.56	7.51	4.58	2.98	2.45	0
Orig. Cred Enhcmnt (%)	11.76	7.01	4.26	2.76	2.26	0
Protection Type	-	-	-	-	-	-
Unpaid PDL	0	0	0	0	0	0

DEAL REPORT (4)

	X	Z1	Z2
ISIN	XS2605912158	XS2605912661	XS2605913636
Type	Soft Bullet	Soft Bullet	Soft Bullet
Currency	EUR	EUR	EUR
Original Balance	3,980,000	9,291,000	7,431,000
Current Balance	2,558,060.05	9,291,000	7,431,000
Issue Date	2023-04-20	2023-04-20	2023-04-20
Maturity Date	2061-07-20	2061-07-20	2061-07-20
IPD	2024-01-22	2024-01-22	2024-01-22
Paym.Freq	Quarterly	Quarterly	Quarterly
Current Coupon (%)			
Margin / Spread (%)	12.72	8	8
Current Int. Rate Floating	-	-	-
Step Up/Dn Coupon	-	-	-
Step Up/Dn Date	2026-10-20	-	-
Coupon Floor (%)	-	-	-
Coupon Cap (%)	-	-	-
Current Int. Rate Index	Euribor	-	-
Next Call Date	2026-10-20	2026-10-20	2026-10-20
Next Put Date	-	-	-
Pool Factor (%)			
Curr.Attch Point (%)	0	0	0
Orgl.Attch Point (%)	0	0	0
Curr. Cred Enhcmnt (%)	0	0	0
Orig. Cred Enhcmnt (%)	0	0	0
Protection Type	-	-	-
Unpaid PDL	0	0	0

DEAL REPORT (5)

WATERFALL INFORMATION

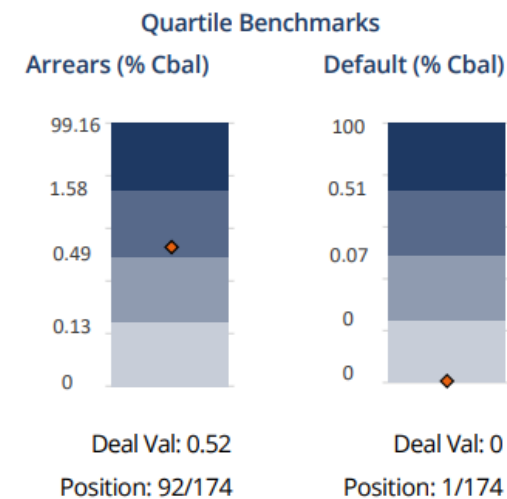
Serial Number	Cashflow Item	Amount Paid During Period	Available Funds Post
1	[a] Revenue Receipts received by the Issuer during the Calculation Period or the Calculated Revenue Receipts	3,216,839.84	3,216,839.84
2	[b] Interest payable to the Issuer on the Transaction Account	137,457.59	3,354,297.43
3	[c] Principal Deficiency Excess Revenue Amounts determined on the Determination Date	0.00	3,354,297.43
4	[d] All amounts standing to the credit of the General Reserve Fund;	2,814,715.32	6,169,012.75
5	[e] Any amounts withdrawn from the Liquidity Reserve Fund in order to remedy a Revenue Shortfall	0.00	6,169,012.75
6	[f] Available Principal Receipts applied in order to remedy a Remaining Revenue Shortfall	0.00	6,169,012.75
7	[g] Any amount applied as Available Revenue Receipts in accordance with Condition 8.13(c)(ii)	0.00	6,169,012.75
8	[h] Principal Receipts applied as Available Revenue Receipts pursuant to item (i) of the Pre-Enforcement Principal Priority of Payments	0.00	6,169,012.75
9	[i] Amounts received by the Issuer under the Swap Agreement	4,316,798.09	10,485,810.84
10	[j] Liquidity Reserve Fund Excess Amounts	123,002.76	10,608,813.60
11	[k] Amounts released from the Liquidity Reserve Fund when the Liquidity Reserve Fund Required Amount is reduced to zero	0.00	10,608,813.60
12	[l] Other net income of the Issuer received during the immediately preceding Calculation Period	0.00	10,608,813.60
13	[m] any amounts standing to the credit of the Start-Up Costs Ledger on the first Interest Payment Date, less any Reconciliation Amounts applied in accordance with Condition #[8.13(c)(i)].	0.00	10,608,813.60
14	(a) first, pro rata and pari passu any fees and other amounts due to Trustee or Appointee	-750.00	10,608,063.60
15	(b) second, in or towards satisfaction pro rata and pari passu(i) the Issuer Profit Amount	-250.00	10,607,813.60
16	(ii) any remuneration then due and payable to or to become due and payable to;(1) the Agent Bank	0.00	10,607,813.60
17	(2) the Registrar	0.00	10,607,813.60
18	(3) the Paying Agents	-250.00	10,607,563.60
19	(iii) any fees, costs, charges, expenses and other amounts due to(1) the Cash Manager	-1,875.00	10,605,688.60
20	(2) the Account Bank	-3,516.00	10,602,172.60
21	(iv) any fees and other amounts due to the Corporate Services Provider	0.00	10,602,172.60

DEAL REPORT (6)

POOL PERFORMANCE

POOL PERFORMANCE

Total Loans	2,712	Top 10 Borrowers	10,135,155.80
Active Loans	2,575	Top 50 Borrowers	33,268,382.37
Active Collaterals	2,575	Cum. Prepayments	25,463,179.57
Active Borrowers	2,511	Cum. Recoveries	1,876,918.24
Non-Performing Exposures	0	WA Int.Rate (%)	2.54
		WA Seasoning (%)	34.77
Original Balance	603,182,861.78	WA Term (%)	314.06
Current Balance	498,837,495.17	WA CLTV (%)	62.26
		WA OLTV (%)	68.15
		WA RTM (%)	277.92



Eligible public deals are divided into 4 equal quartiles

Account Status Distribution

Account Status	#Loans	Current Balance	%	% (Previous)	WA Total Income	WA Loan Term	WA CLTV
Performing	2,558	496,226,436.53	99.48	99.76	86,741.49	304.76	62.31
Arrears	18	2,611,058.64	0.52	0.24	73,451.50	341.33	52.85
Redeemed	136	0	0	0	71,437.44	290.43	0

DEAL REPORT (7)

POOL ACCOUNT STATUS

# Loans	(Current)							
	Performing	Arrears	Defaulted	Restructured	Redeemed	Repurchased	Other	# Dropped
Performing	2,555	9			41			
Arrears	3	9						
Defaulted								
Restructured								
Redeemed					95			
Repurchased								
Other								
New Loans in Curr. PCD								

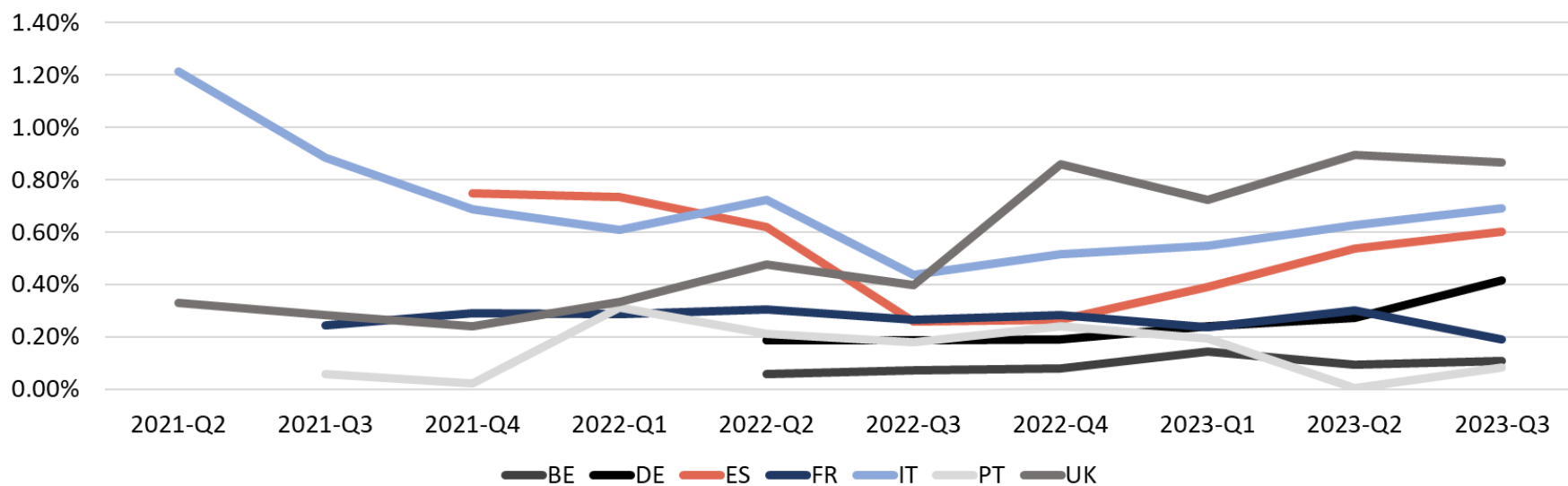
% Current Balance	(Current)							
	Performing	Arrears	Defaulted	Restructured	Redeemed	Repurchased	Other	# Dropped
Performing	99.44	0.32			0			
Arrears	0.04	0.20						
Defaulted								
Restructured								
Redeemed					0			
Repurchased								
Other								
New Loans in Curr. PCD								

BEYOND DEAL LEVEL INFORMATION

CDR INDICES RMB

Residential Mortgages

CDR Index (RMBS)
Weighted Average CDR As Reported in Annex 12

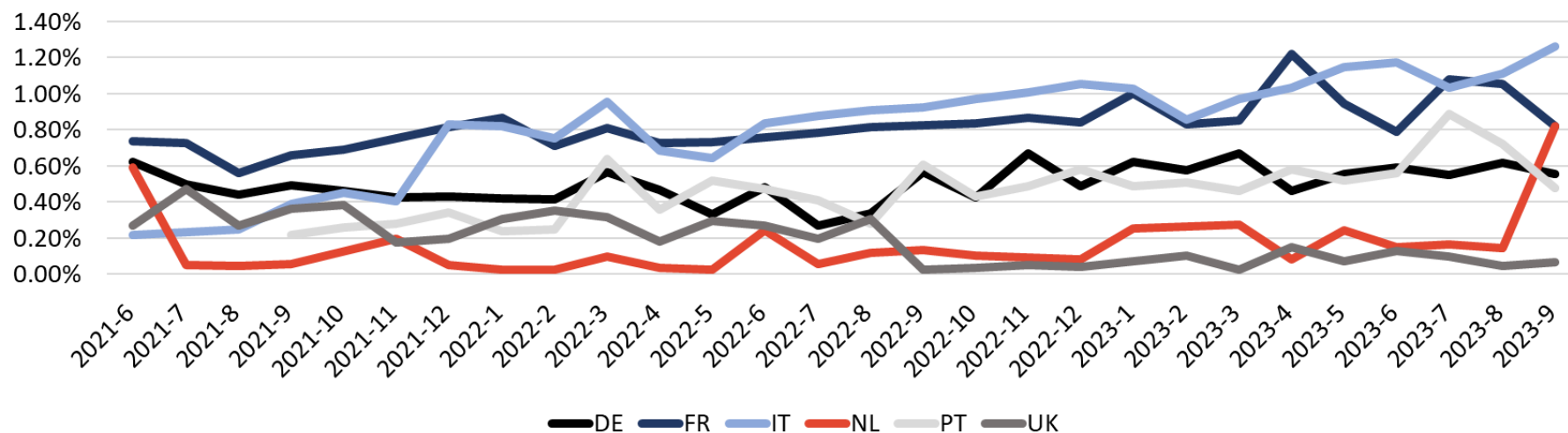


Source: European DataWarehouse

CDR INDICES AUTO

Auto

CDR Index (AUTO)
Weighted Average CDR As Reported In Annex 12



Source: European DataWarehouse

COUNTERPARTY ANALYSIS (PART 1)

CP's IRELAND	TOP 3 CP's	CP's EU AND UK	TOP 3 CP's
CP_NAME	ARRANGER	CP_NAME	ARRANGER
BANK OF AMERICA	9	BNP PARIBAS	34
NATIXIS	4	SOCIETE GENERALE	32
MORGAN STANLEY	2	BANCO SANTANDER, S.A.	30
CP_NAME	ADMIN. AGENT	CP_NAME	ADMIN. AGENT
CSC CAPITAL MARKETS	5	INTERTRUST B.V.	37
VISTRA	4	CIRCUMFERENCE FS (LUXEMBOURG) S.A.	19
INTERTRUST MANAGEMENT	2	INTERTRUST (LUXEMBOURG) S.À R.L.	17
CP_NAME	RATING AGENCY	CP_NAME	RATING AGENCY
DBRS RATINGS	18	DBRS RATINGS	271
S&P	13	MOODY'S	262
MOODY'S	3	FITCH RATINGS	235
CP_NAME	IRSP	CP_NAME	IRSP
NATIXIS	3	BNP PARIBAS	41
BNP PARIBAS MELODIES	3	DZ BANK AG	27
BOFA SECURITIES EUROPE SA	2	CACIB	24

COUNTERPARTY ANALYSIS (PART 2)

CP's IRELAND	TOP 3 CP's	CP's EU AND UK	TOP 3 CP's
CP_NAME	TRUSTEE	CP_NAME	TRUSTEE
BNY MELLON	7	SECURITISATION SERVICES S.P.A.	29
U.S. BANK TRUSTEES LIMITED	5	INTERTRUST TRUSTEES GMBH	28
BNP PARIBAS TRUST CORPORATION	3	WILMINGTON TRUST SP	17
CP_NAME	SELLER	CP_NAME	SELLER
DILOSK DAC	5	VOLKSWAGEN LEASING GMBH	15
FINANCE IRELAND DAC	5	BBVA	12
PERMANENT TSB	3	AGOS-DUCATO S.P.A.	9
CP_NAME	SERVICER	CP_NAME	SERVICER
DILOSK DAC	5	VOLKSWAGEN LEASING GMBH	15
PEPPER FINANCE	5	BBVA	12
THE BANK OF IRELAND	3	AGOS-DUCATO S.P.A.	9
CP_NAME	COLLECTION ACCT	CP_NAME	COLLECTION ACCT.
THE BANK OF IRELAND	8	ABN AMRO BANK N.V.	27
BNP PARIBAS	4	BNP PARIBAS	21
PERMANENT TSB PLC	3	BNP PARIBAS SECURITIES SERVICES	18

IRELAND'S ECONOMIC OUTLOOK

JASON GRAFFAM, MORNINGSTAR DBRS

Ireland's Economic Outlook



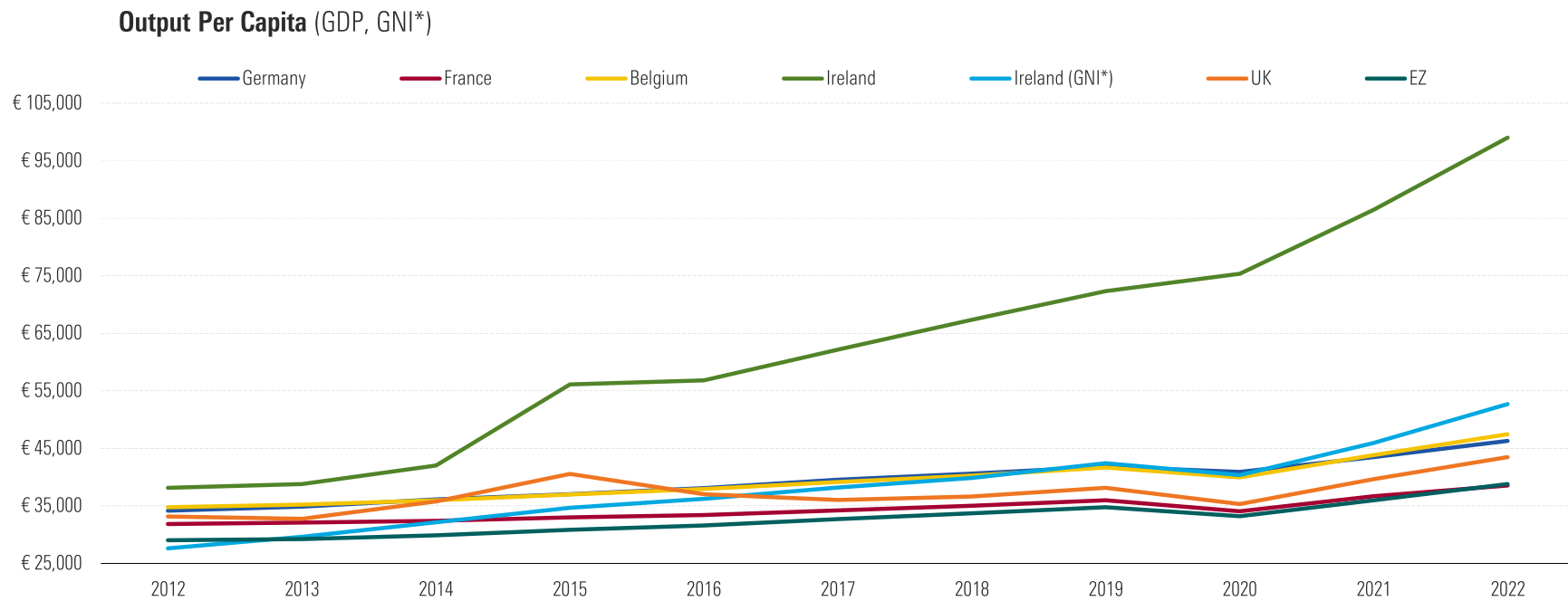
Jason Graffam
Senior Vice President
Sovereign Ratings and Financial Institutions Group
Morningstar DBRS
April 2024

©2024 Morningstar. All Rights Reserved.

Agenda

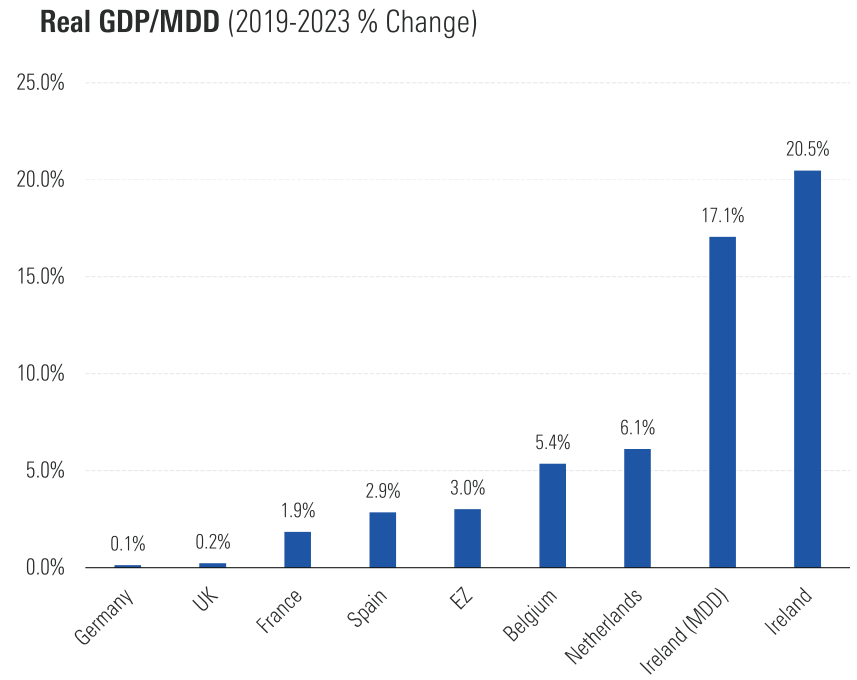
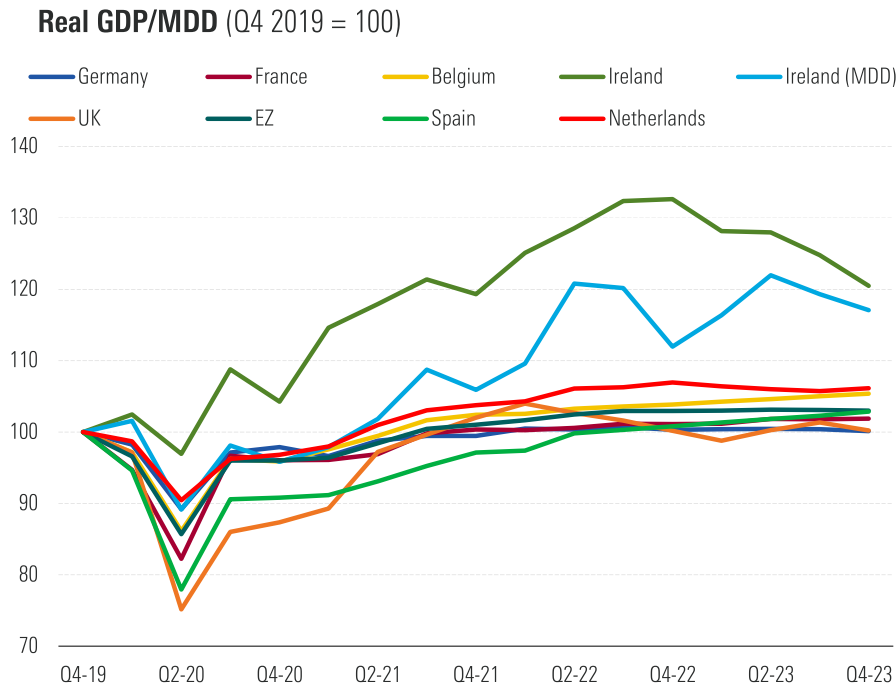
- Irish Economy: Be Cautious of National Accounts Data
- Resiliency to Recent Shocks
- Moderating Economic Growth
- What to Watch: Risks to Current Economic Projections

Be Cautious With Ireland's National Accounts Data



Source: Central Statistics Office Ireland, Eurostat, Morningstar DBRS, Haver Analytics.

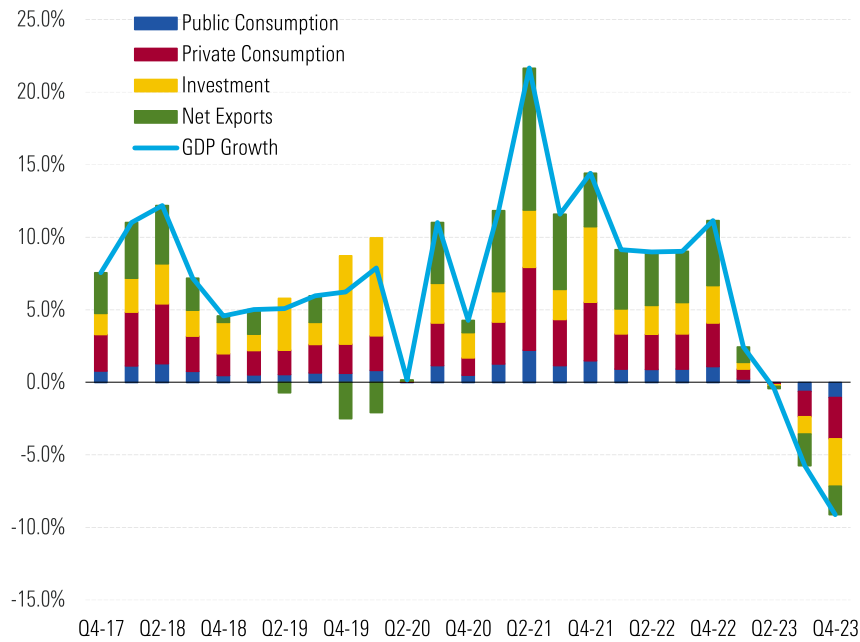
Ireland's Economic Resilience To Recent Shocks Relative To Peers



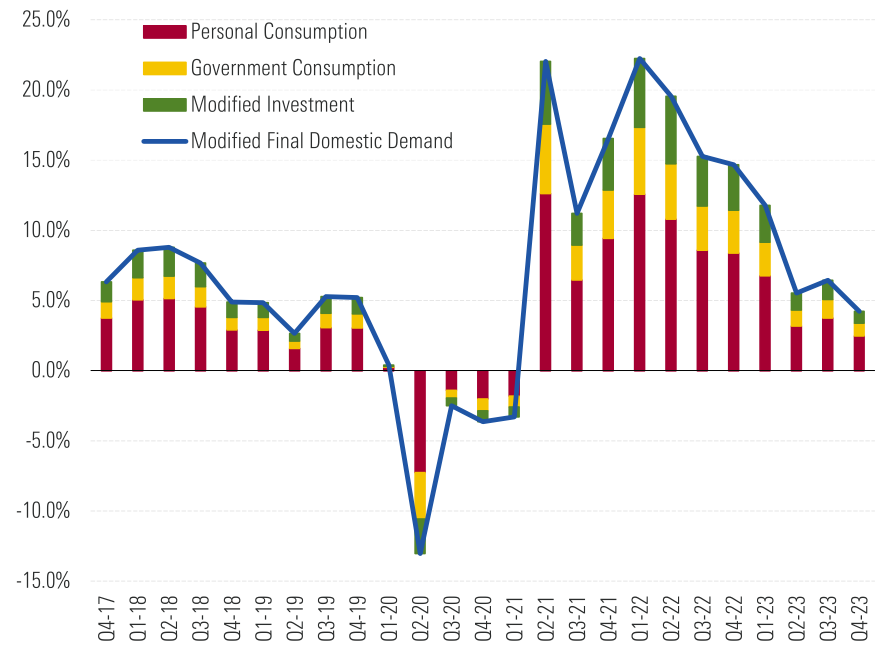
Source: Central Statistics Office Ireland, Eurostat, Morningstar DBRS, Haver Analytics.

Moderating Growth Momentum

Real GDP and Contributors (% , y/y)



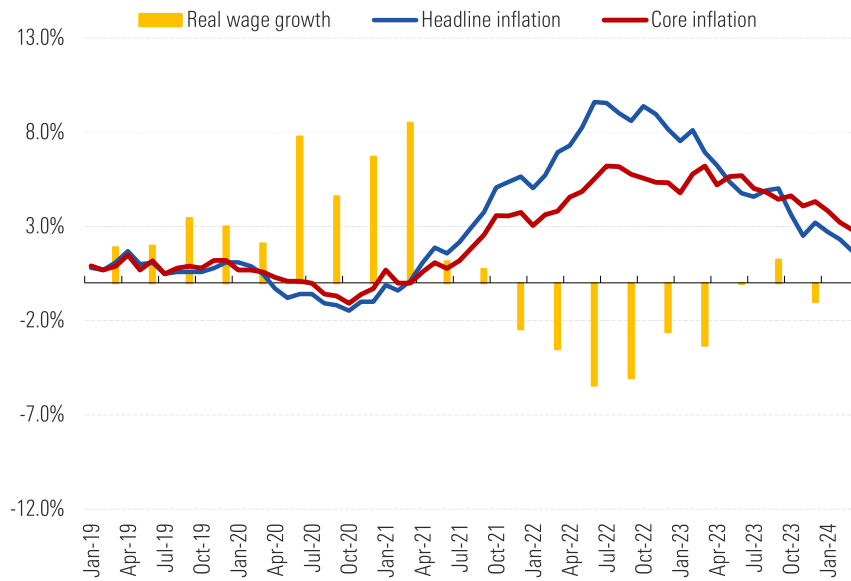
Modified Domestic Demand (% , yoy)



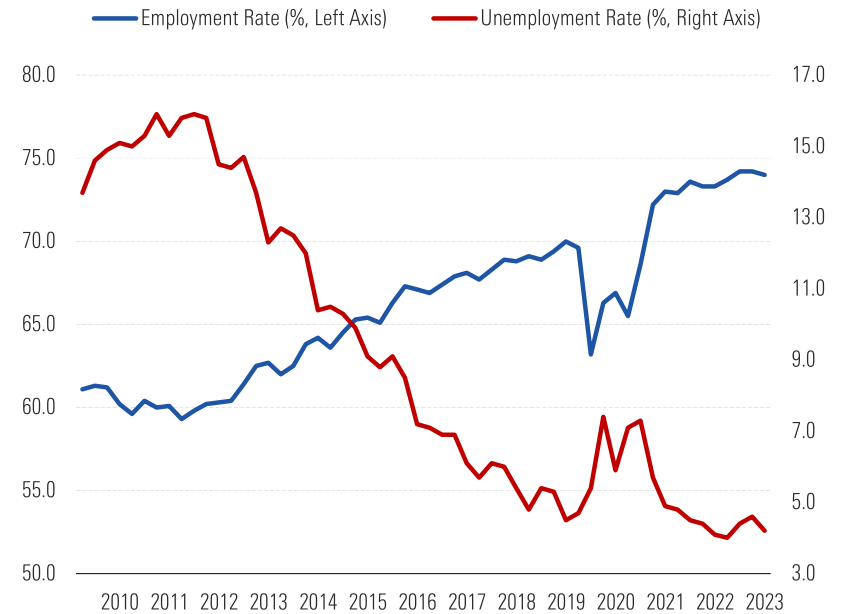
Source: Central Statistics Office Ireland, Morningstar DBRS, Haver Analytics.

Full Employment And Improving Purchasing Power

Inflation and Real Wage Growth (% YoY)

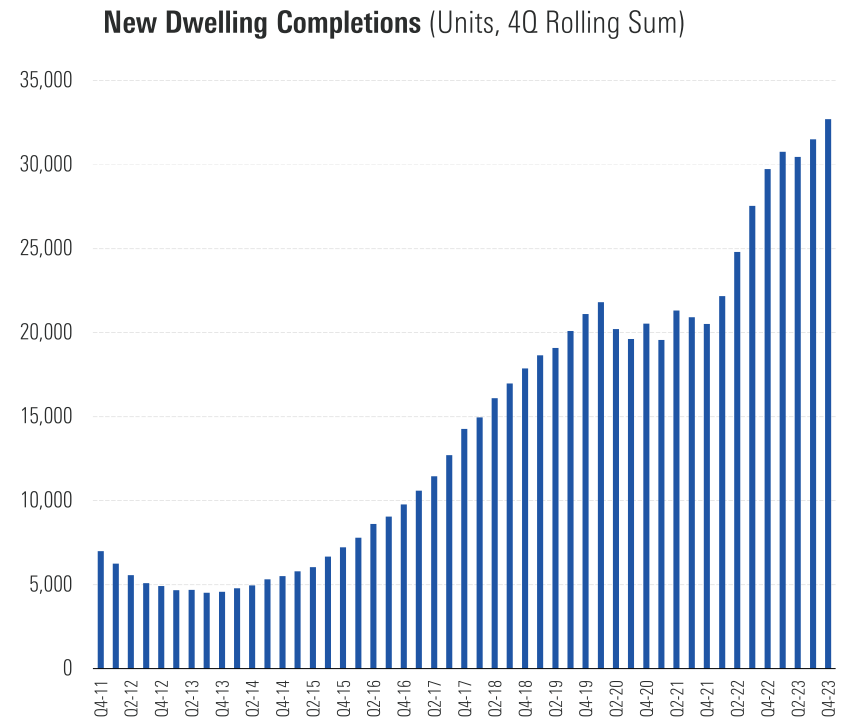
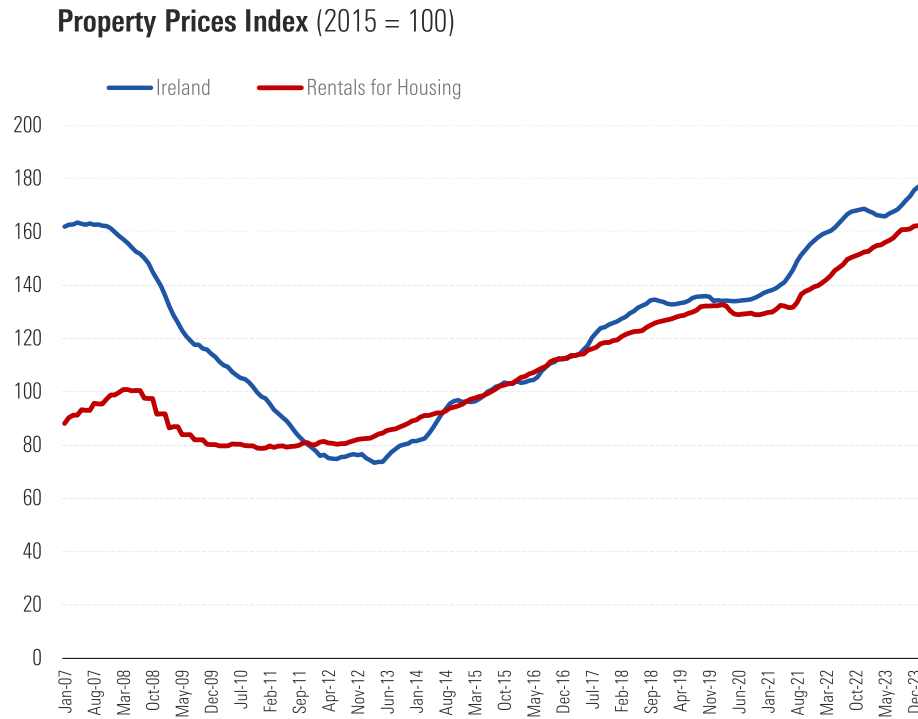


Labour Market Data (%)



Source: Central Statistics Office Ireland, Central Bank of Ireland, Morningstar DBRS, Haver Analytics. For real wages we used the following formula: $(1 + \text{Wage Index \%YoY}) / (1 + \text{CPI \%YoY}) - 1$.

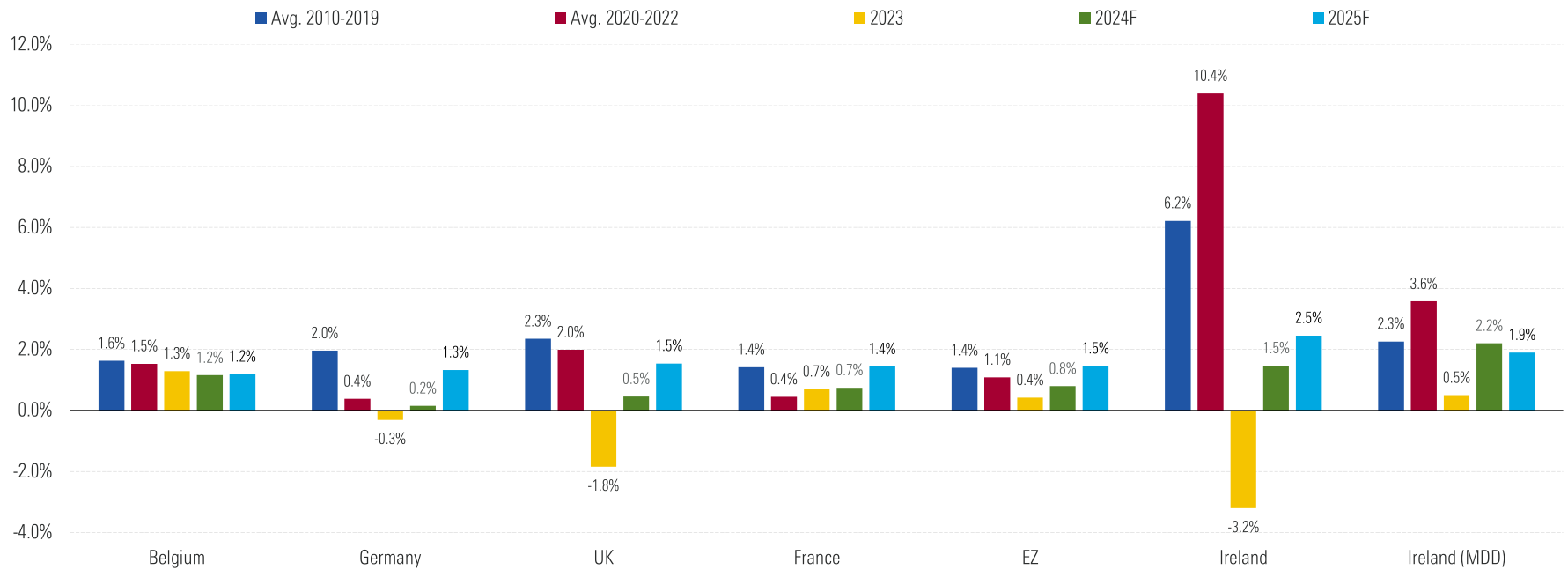
Cost Of Housing A Key Capacity Constraint



Source: Central Statistics Office Ireland, Morningstar DBRS, Haver Analytics

Irish Economic Growth To Moderate But Remain Above Peers

Output Growth (Real GDP, MDD)



Note: MDD forecast from Central Bank of Ireland Source: Central Statistics Office Ireland, Eurostat, Morningstar DBRS (Macroeconomic Baseline March 2024), Haver Analytics.

Risks to Irish Economic Outlook: What Else To Look Out For

- Geopolitics, another global price shock, and general trade uncertainty.
- Parliamentary election in Ireland and government formation challenges.
- Implications for the Irish economy from elections elsewhere (US and UK).
- Business exposures to the UK and implementation of new trading rules.
- Fiscal policy: direction of spending priorities, corporate tax concentration.
- Sectoral developments in pharma and ICT sectors, global tax reforms.

The Morningstar DBRS group of companies consists of DBRS, Inc. (Delaware, U.S.)(NRSRO, DRO affiliate); DBRS Limited (Ontario, Canada)(DRO, NRSRO affiliate); DBRS Ratings GMBH (Frankfurt, Germany) (EU CRA, NRSRO affiliate, DRO affiliate); and DBRS Ratings Limited (England and Wales)(UK CRA, NRSRO affiliate, DRO affiliate). Morningstar DBRS does not hold an Australian financial services license. Morningstar DBRS credit ratings, and other types of credit opinions and reports, are not intended for Australian residents or entities. Morningstar DBRS does not authorize their distribution to Australian resident individuals or entities, and accepts no responsibility or liability whatsoever for the actions of third parties in this respect. For more information on regulatory registrations, recognitions and approvals of the Morningstar DBRS group of companies please see: <https://dbrs.morningstar.com/research/highlights.pdf>.

The Morningstar DBRS Group of companies are wholly-owned subsidiaries of Morningstar, Inc.

© 2024 Morningstar DBRS. All Rights Reserved. The information upon which Morningstar DBRS credit ratings and other types of credit opinions and reports are based is obtained by Morningstar DBRS from sources Morningstar DBRS believes to be reliable. Morningstar DBRS does not audit the information it receives in connection with the analytical process, and it does not and cannot independently verify that information in every instance. The extent of any factual investigation or independent verification depends on facts and circumstances. Morningstar DBRS credit ratings, other types of credit opinions, reports and any other information provided by Morningstar DBRS are provided "as is" and without representation or warranty of any kind and Morningstar DBRS assumes no obligation to update any such credit ratings, opinions, reports or other information. Morningstar DBRS hereby disclaims any representation or warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability, fitness for any particular purpose or non-infringement of any of such information. In no event shall Morningstar DBRS or its directors, officers, employees, independent contractors, agents, affiliates and representatives (collectively, Morningstar DBRS Representatives) be liable (1) for any inaccuracy, delay, loss of data, interruption in service, error or omission or for any damages resulting therefrom, or (2) for any direct, indirect, incidental, special, compensatory or consequential damages arising from any use of credit ratings, other types of credit opinions and reports or arising from any error (negligent or otherwise) or other circumstance or contingency within or outside the control of Morningstar DBRS or any Morningstar DBRS Representative, in connection with or related to obtaining, collecting, compiling, analyzing, interpreting, communicating, publishing or delivering any such information. IN ANY EVENT, TO THE EXTENT PERMITTED BY LAW, THE AGGREGATE LIABILITY OF MORNINGSTAR DBRS AND THE MORNINGSTAR DBRS REPRESENTATIVES FOR ANY REASON WHATSOEVER SHALL NOT EXCEED THE GREATER OF (A) THE TOTAL AMOUNT PAID BY THE USER FOR SERVICES PROVIDED BY MORNINGSTAR DBRS DURING THE TWELVE (12) MONTHS IMMEDIATELY PRECEDING THE EVENT GIVING RISE TO LIABILITY, AND (B) U.S. \$100. Morningstar DBRS does not act as a fiduciary or an investment advisor. Morningstar DBRS does not provide investment, financial or other advice.

Credit ratings, other types of credit opinions and other analysis and research issued by Morningstar DBRS (a) are, and must be construed solely as, statements of opinion and not statements of fact as to credit worthiness, investment, financial or other advice or recommendations to purchase, sell or hold any securities; (b) do not take into account your personal objectives, financial situations or needs; (c) should be weighed, if at all, solely as one factor in any investment or credit decision; (d) are not intended for use by retail investors; and (e) address only credit risk and do not address other investment risks, such as liquidity risk or market volatility risk. Accordingly, credit ratings, other types of credit opinions and other analysis and research issued by Morningstar DBRS are not a substitute for due care and the study and evaluation of each investment decision, security or credit that one may consider making, purchasing, holding, selling, or providing, as applicable.

A report with respect to a Morningstar DBRS credit rating or other credit opinion is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities.

Morningstar DBRS may receive compensation for its credit ratings and other credit opinions from, among others, issuers, insurers, guarantors and/or underwriters of debt securities.

This publication may not be reproduced, retransmitted or distributed in any form without the prior written consent of Morningstar DBRS. ALL MORNINGSTAR DBRS CREDIT RATINGS AND OTHER TYPES OF CREDIT OPINIONS ARE SUBJECT TO DEFINITIONS, LIMITATIONS, POLICIES AND METHODOLOGIES THAT ARE AVAILABLE ON [HTTPS://DBRS.MORNINGSTAR.COM](https://dbrs.morningstar.com). Users may, through hypertext or other computer links, gain access to or from websites operated by persons other than Morningstar DBRS. Such hyperlinks or other computer links are provided for convenience only. Morningstar DBRS does not endorse the content, the operator or operations of third party websites. Morningstar DBRS is not responsible for the content or operation of such third party websites and Morningstar DBRS shall have no liability to you or any other person or entity for the use of third party websites.



Q&A, CLOSING REMARKS

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.