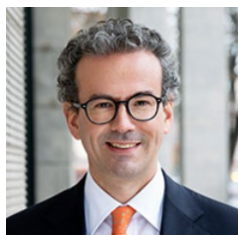


AUTUMN WORKSHOP SERIES

ATHENS – 10 NOVEMBER 2022



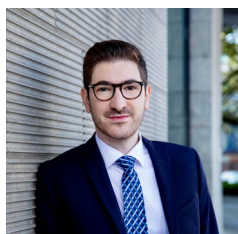
AT TODAY'S WORKSHOP



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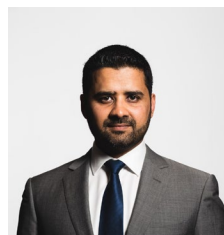
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AGENDA

1. WELCOME AND INTRODUCTION

2. UPDATE ON THE REVISION OF THE SECURITISATION REGULATION

- Martin Kuhn, European DataWarehouse

3. EDW ACTIVITIES, DATA QUALITY AND DEAL REPORT

- Andrea Bedin & Martin Kuhn, European DataWarehouse

4. ISSUANCE TRENDS AND CURRENT CREDIT OUTLOOK

- Mudasar Chaudhry, DBRS Morningstar

5. NPL MARKET UPDATE

- Fulvio Pelargonio, NPL Markets

6. CLOSING REMARKS

- Martin Kuhn, European DataWarehouse

WELCOME AND INTRODUCTION

UPDATE ON THE REVISION OF THE SECURITISATION REGULATION

MARTIN KUHN

EC REPORT ON THE FUNCTIONING OF THE SECURITISATION REGULATION



Brussels, 10.10.2022
COM(2022) 517 final

**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND
THE COUNCIL**

On the functioning of the Securitisation Regulation

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Source: European Commission website
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0517&from=EN>

EC REPORT ON THE FUNCTIONING OF THE SECURITISATION REGULATION

New proposed templates for private securitisations:

The Commission invites ESMA to draw up a **dedicated template** for **private securitisation** transactions that is tailored particularly to supervisors' need to gain an overview of the market and of the main features of the private transactions.

Rationale: A dedicated template for private securitisations is expected to **simplify** considerably the transparency requirements for private securitisations. At the same time, it will serve the need of supervisors to receive **sufficient information** on private transactions.

EDW RESPONDS TO VARIOUS CONSULTATIONS RELATING TO THE REVIEW OF THE EU SECURITISATION FRAMEWORK AND NPLS

European DataWarehouse has recently submitted responses to a number of consultations.

EC Targeted Consultation on the Functioning of the EU Securitisation Framework

This **consultation** is aimed at collecting stakeholders' views on a broad range of topics including the effects of the SECR, private securitisations, equivalence regime for STS securitisations, environmental performance, and sustainability disclosures.

EDW provided its feedback on the following topics:

- Private securitisations – The definition of what constitutes private and public securitisations is important for the development and the well-functioning of the securitisation market.
- Due diligence and jurisdictional scope – EDW commented on the usefulness of loan-level data. Also, from an SR perspective, any EU or third country sell-side entity could register and use its services to meet the respective regulatory reporting requirements.
- Sustainability disclosure – In order to promote a sound and safe development of the EU sustainable securitisation market, there is a need for a clear and standardised definition of sustainable securitisation, as well as alignment of sustainability disclosures across different regulatory reporting regimes.

EBA Discussion Paper (DP) on NPL Data Templates

This **discussion paper** is aimed at collecting stakeholders' feedback on the review of the standardised NPL data templates.

EDW's response can be summarised in the following two points:

- The revised EBA templates have a simplified data structure which is more in line with the current market standards
- Due to its longstanding experience with the technical implementation of various data reporting templates, EDW has provided the relevant technical feedback to EBA. Content relevant feedback was also provided where necessary.

EC Targeted Consultation on Improving Transparency and Efficiency in Secondary Markets for Non-Performing Loans (NPLs)

The **consultation** is aimed at collecting stakeholders' views on the remaining obstacles to the proper functioning of secondary markets for NPLs as well as possible actions that it could take to foster these markets by improving the quantity, quality, and comparability of NPL data.

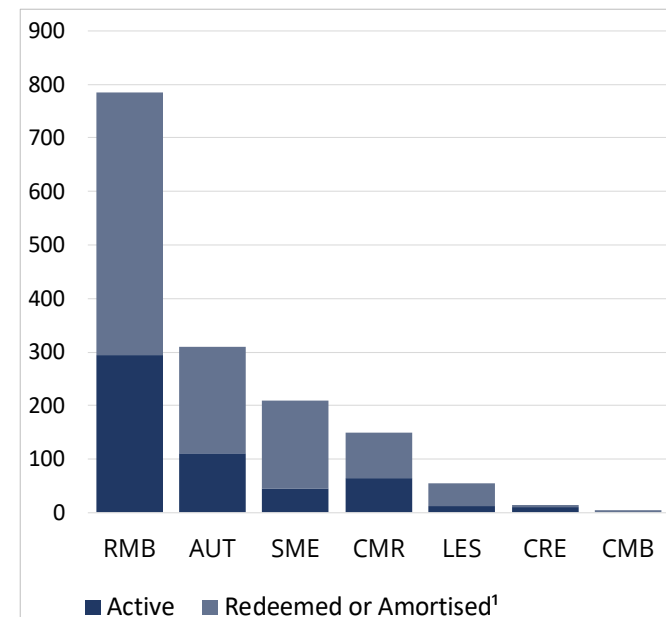
UPDATE ON ACTIVITIES AND SERVICES

ANDREA BEDIN & MARTIN KUHN

OVERVIEW OF PUBLIC DEALS

Number of public deals

Asset Class	Active	Redeemed or Amortised ¹	Total	Number of loans ²
RMB	295	490	785	16.62
AUT	110	200	310	18.72
SME	45	164	209	2.32
CMR	64	86	150	33.84
LES	12	42	54	0.66
CRE	10	4	14	19.21
CMB	0	5	5	12
TOTAL	536	991	1527	91.36



¹ Upload of loan level data has discontinued, typically due to bond redemptions

² based on only the latest LLD submissions (numbers in Millions)

³ based on only the latest LLD submissions (numbers in Millions)

⁴ Number of loan sponsors in whole numbers

MARKET OVERVIEW

Private transactions only

PRIVATE TRANSACTIONS IN EDITOR

~300
TOTAL

100+
ISSUERS

12
COUNTRIES

11
ASSET CLASSES

PRIVATE SECURITISATIONS ON ESMA'S STS REGISTER

327
TOTAL

284
ABCP

43
NON-ABCP

Sources: EDW, ESMA

DISCLOSURE REQUIREMENTS

Differences between public and private securitisations in EDITOR – EDW’s Securitisation Repository solution

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	✓	–

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

PRIVATE TRANSACTION DISCLOSURE REQUIREMENTS

- EDW implemented a private area solutions 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

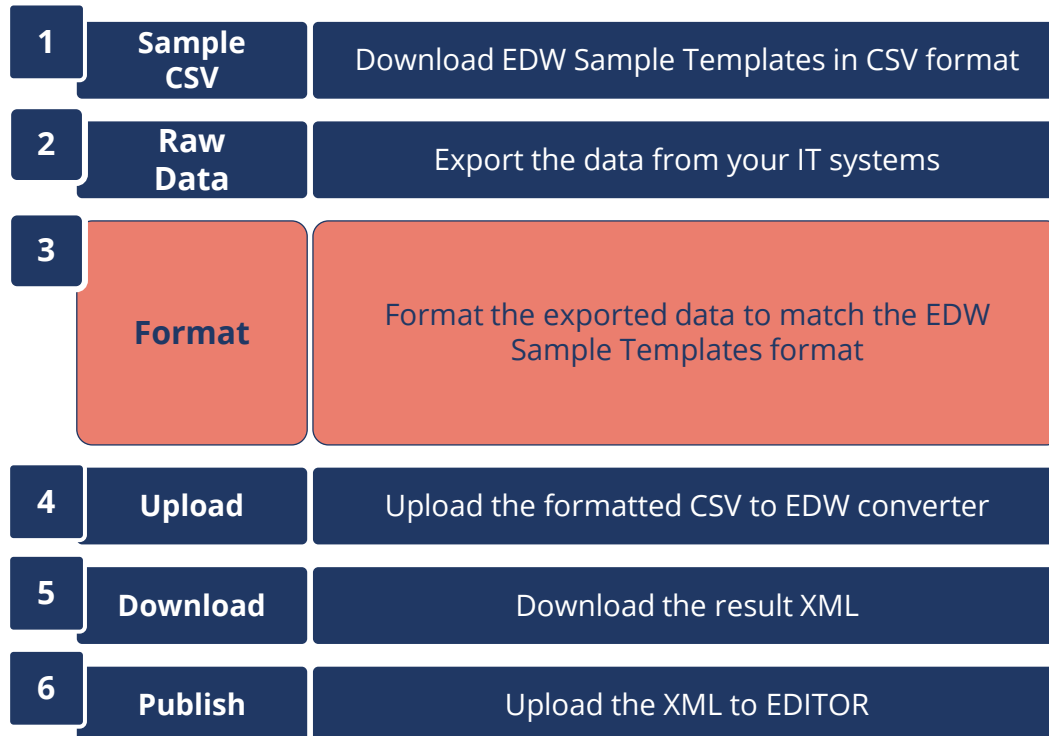
TEMPLATE CATEGORY	FIELD CODE	FIELD NAME	CONTENT TO REPORT	ND1-ND4 allowed ²	ND5 allowed ²	FORMAT
ANNEX 10: NPE	Underlying exposures information section					
ANNEX 10: NPE	NPEL1	Unique Identifier	The unique identifier assigned by the reporting entity in accordance with Article 11(1) of Delegated Regulation (EU) .../... [include number of the disclosure RTS]. This entry must match the unique identifier field in the accompanying underlying exposures template being completed for this specific underlying exposure.	NO	NO	{ALPHANUM-28}
ANNEX 10: NPE	NPEL7	In Receivership	Indicator as to whether the obligor is in Receivership	YES	YES	{Y/N}
ANNEX 10: NPE	NPEL8	Date of Last Contact	Date of last direct contact with the obligor	YES	YES	{DATEFORMAT}
ANNEX 10: NPE	NPEL9	Deceased	Indicator as to whether the obligor has passed away	YES	YES	{Y/N}
ANNEX 10: NPE	NPEL10	Legal status	The type of legal status of the obligor. Listed Corporate is a Corporate entity whose shares are quoted and traded on a Stock Exchange (LCRP) Unlisted Corporate is a Corporate entity whose shares are not quoted and traded on a stock exchange, however an unlisted corporate may have an unlimited number of shareholders to raise capital for any commercial venture (UCRP) Listed Fund is a fund whose shares are quoted and traded on a Stock exchange (LFND) Unlisted Fund is a fund whose shares are not quoted and traded on a Stock exchange (UFND) Partnership is where the Sponsor constitutes a group of individuals who form a legal partnership, where profits and liabilities are shared (PSHP) Private Individual (INDV)	YES	YES	{LIST}
ANNEX 10: NPE	NPEL11	Legal Procedure Type	Type of the insolvency process the obligor is currently in: Corporate Restructuring Procedure, which also includes funds (CPRR) Corporate Insolvency Procedure, which also includes funds (CPRI) Private Individual Obligor Debt Compromise Procedure (PRCM) Private Individual Obligor Insolvency Procedure (PRIP) Partnership Restructuring Procedure (PRTR) Partnership Insolvency Procedure (PRIS) Other (OTHR)	YES	YES	{LIST}

Synthetic coverage information section (synthetic non-ABCP securitisations)		Synthetic coverage information section	
Synthetic coverage information section (synthetic non-ABCP securitisations)	SESV1	Unique Identifier	Report the same unique identifier here as the one entered into field SESS1.
Synthetic coverage information section (synthetic non-ABCP securitisations)	SESV2	Protection Instrument Identifier	The unique identifier of the protection instrument. The reporting entity must not amend this unique identifier.
Synthetic coverage information section (synthetic non-ABCP securitisations only)	SESV3	Protection Type	List the type of protection instrument used: Credit Default Swap (CDSX) Credit-Linked Note (CLKN) Total Return Swap (TRES) Financial Guarantee (a.k.a. unfunded credit risk mitigation) (FGUA) Credit Insurance (CINS) Other (OTHR)

BESPOKE CSV2XML CONVERTER SOLUTION (1/2)

Integrated solution to convert your raw data into an ESMA-compliant XML

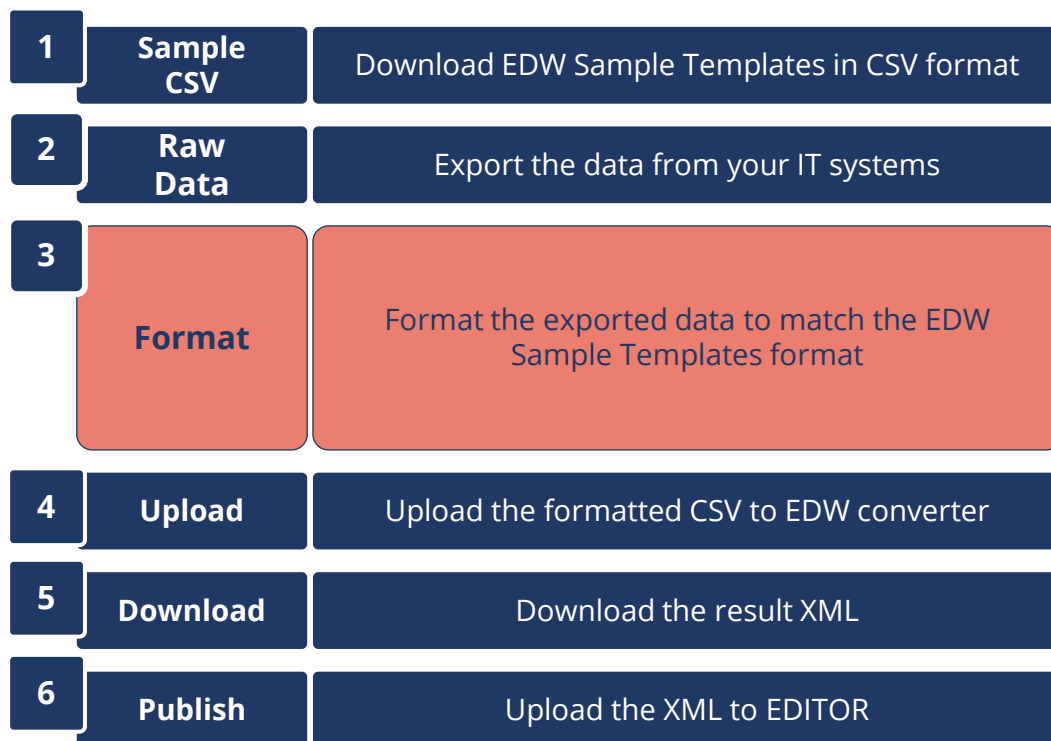
Current process



BESPOKE CSV2XML CONVERTER SOLUTION (2/2)

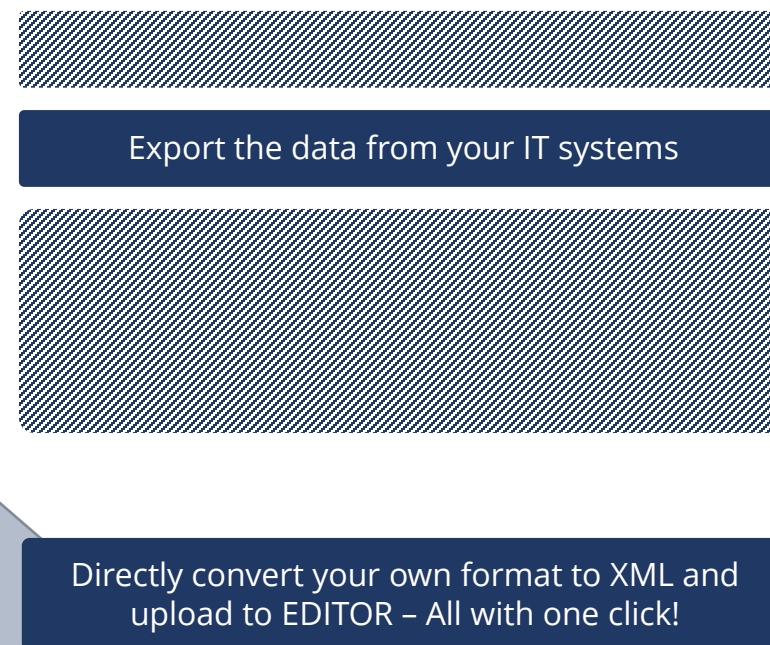
Integrated solution to convert your raw data into an ESMA-compliant XML

Current process



New process

(optional, upon request)



EDW DEAL REPORT (1/2)

Like an Investor Report based on ESMA templates. Available upon upload and easy to use.

Instantly Generated

Instant holistic view of your deal

Works for both private & public deals

Powerful Benchmarks

Powerful snapshot and history benchmarks

Know how you rank against peers



Detailed Investor Report

Contains information that is typical in Investor Reports

Quality control of PDF investor reports

Free & Redistributable

Tables, graphs, charts...

Copy them to your PDF investor reports or share with investors

EDW DEAL REPORT

Example of information provided in the EDW Deal Report

POOL PERFORMANCE

Total Loans	413,538	Top 10 Borrowers	1,742,121.49
Active Loans	363,812	Top 50 Borrowers	3,704,517.86
Active Collaterals	N/A	Cum. Prepayments	230,779,793.22
Active Borrowers	334,667	Cum. Recoveries	12,913,284.24
Non-Performing Exposures	N/A	WA Int.Rate	2.74
		WA Seasoning	29.96
Original Balance	7,349,018,734.89	WA Term	79.20
Current Balance	3,558,996,583.92	WA CLTV	N/A
		WA OLTV	N/A
		WA RTM	49.59

Quartile Benchmarks

Arrears (% Cbal) | Default (% Cbal)

Deal Val: 0.41 | Deal Val: 1.21

Position: 14/64 | Position: 35/64

Eligible public deals are divided into 4 equal quartiles

Account Status Distribution

Account Status	#Loans	Cur.Bal	% Cbal	% Cbal (Prev)	Avg. Primary Income	Avg. Loan Term	Avg. Int. Rate
Performing	356,191	3,484,734,043	97.91	98.00	37,670.07	64.75	3.97
Restructured - No Arrears	1,529	16,723,708.98					
Default (acc.to Art 178)	7,263	40,261,694.41					
Default (other Def: not Art 178)	374	2,751,160.15					
Arrears	1,753	14,525,977.38					
Redeemed	46,428	0					

DELINQUENCY INFORMATION

# Days in Arrears	Loans in Arrears					All Loans				
	#Loans	Cur.Bal	% Cbal	% Cbal (Prev)	Arrears. Bal	Arrears Bal / Curr. Bal	Curr.Bal	% Cbal	% Cbal (Prev)	
1 - 29 Days	1,022	8,537,052.21	0.24	0.21	548,296.25	0.06	13,098,129.14	0.37	0.32	
30 - 59 Days	486	4,256,394.14	0.12	0.10	530,581.70	0.12	7,776,409.65	0.22	0.21	
60 - 89 Days	245	1,732,531.03	0.05	0.05	562,156.09	0.32	4,653,929.57	0.13	0.17	
90 - 119 days										
120 - 149 days										
150 - 179 days										
>= 180 days										

Performance History

Days in Arrears (% Cbal)

Cum. Prepayments

DEAL OVERVIEW

Securitisation Identifier	EDW Sample Deal	ESMA Completeness Score	A1
Deal Name	EDW Sample Deal	EDW Data Quality Score	A
EDCode	EDW Sample Deal	DQS Distribution by Asset Class	(For all deals on EDW platform)
Pool Cut-Off Date	2022-08-31		
STS	Yes		
Vintage	2019		
Asset Type	RMB		
Country of Assets	Belgium		
Country of Primary Exchange	Belgium		
Country of SPV Incorporation	Belgium		
ESMA Templates made available	Underlying Exposures, Sign. Evnt, Inv. Rpt		
Is the Securitisation Private?	No		
Reporting Entity Name	EDW		
Report Entity Contact	Gopala Sankaran		
Phone	+32-(24173519)		
Email	gs@eurodw.eu		

DQS Distribution by Asset Class

(For all deals on EDW platform)

EDW DEAL REPORT

Example of information provided in the EDW Deal Report

DEAL OVERVIEW

Securitisation Identifier	567513456WBVSGC4U64N202101
Deal Name	DEMO DEAL EDITOR NEXT GEN
EDCode	CMRSES000099900620212
Pool Cut-Off Date	2022-07-31
STS	Yes
Vintage	2021
Asset Type	CMR
Country of Assets	Spain
Country of Primary Exchange	Luxembourg
Country of SPV Incorporation	Spain
ESMA Templates made available	Underlying Exposures, Sign. Evnt, Inv. Rpt
Is the Securitisation Private?	No
Reporting Entity Name	EUROPEAN DATAWAREHOUSE
Report Entity Contact	GOPALA SANKARAN
Phone	+49-(0)609865319
Email	gs@eurodw.eu

ESMA Completeness Score

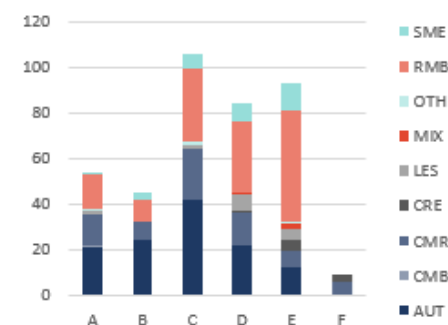
A2

EDW Data Quality Score

B

DQS Distribution by Asset Class

(For all deals on EDW platform)

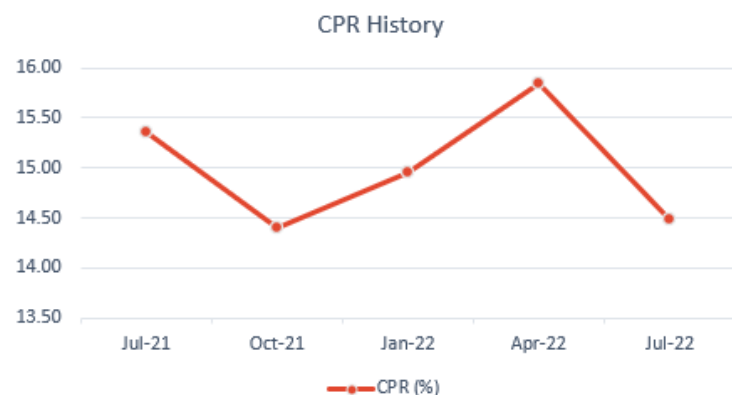


EDW DEAL REPORT

Example of information provided in the EDW Deal Report

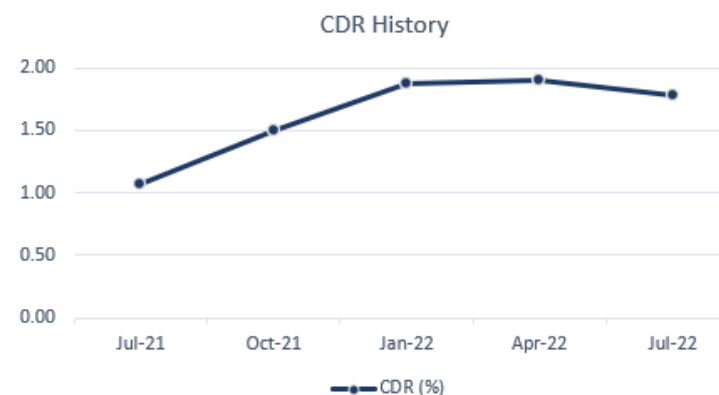
COLLECTIONS & RECOVERIES

Principal Collections	460,183,494.56
Interest Collections	31,936,770.22
Principal Recoveries	0
Interest Recoveries	2,268,910.23
Repurchased Exposures	0
Restructured Exposures	0
Defaulted Exposures	43,012,854.56
Defaulted Exposures CRR	40,286,083.19
Annualised CPR (%)	14.49
Annualised CDR (%)	1.78



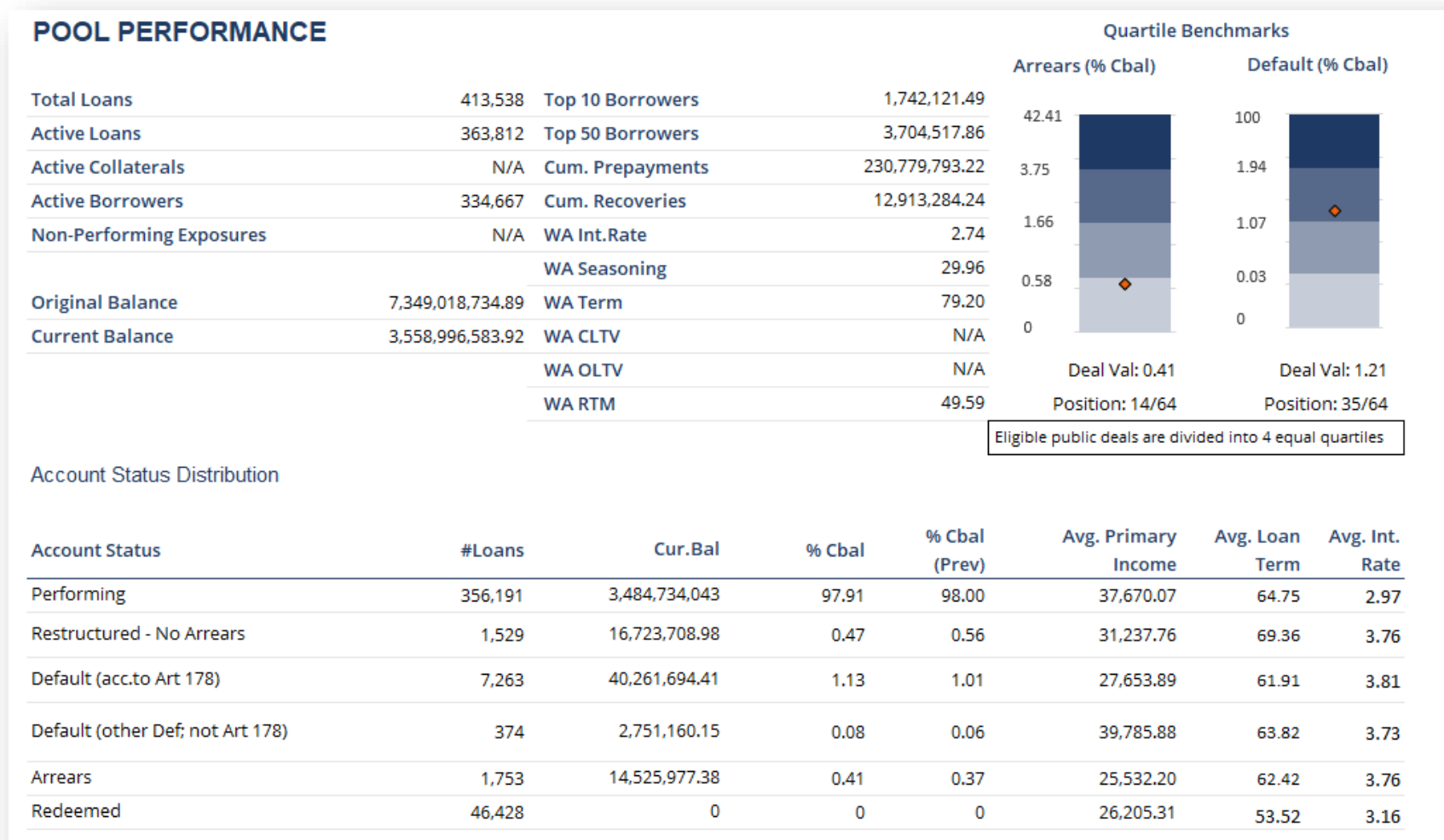
RISK

Dilutions	0
Gross Charge-offs In The Period	4,852,789.16
Internal LGD Estimate (%)	48.60
Excess Spread	13,344,121.92
Is Excess Spread Trapped?	No
Current Overcollateralisation (%)	87.90
Risk Retention Method	First Loss Tranche
Risk Retention Holder	Originator
Risk Transfer Method - True Sale?	Yes
Risk Weight Approach	Standardised Approach
Revolving/ Ramp-Up Period End-Date	2023-05-25



EDW DEAL REPORT

Example of information provided in the EDW Deal Report



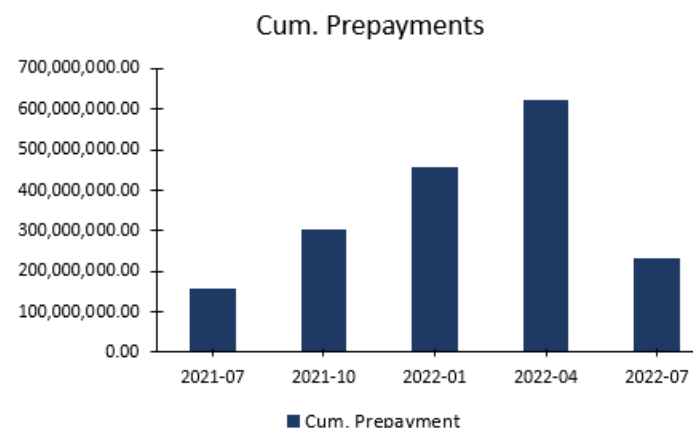
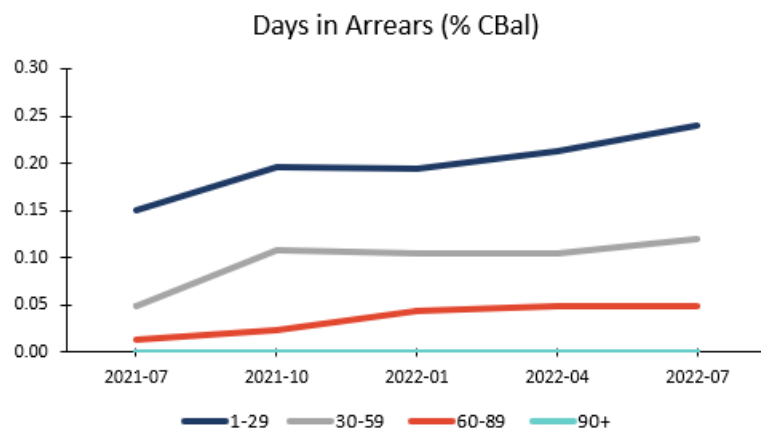
EDW DEAL REPORT

Example of information provided in the EDW Deal Report

DELINQUENCY INFORMATION

# Days in Arrears	Loans in Arrears					All Loans			
	#Loans	Cur.Bal	% Cbal	% Cbal (Prev)	Arrears. Bal	Arrears Bal / Curr. Bal	Curr.Bal	% Cbal	% Cbal (Prev)
1 - 29 Days	1,022	8,537,052.21	0.24	0.21	548,296.25	0.06	13,098,129.14	0.37	0.32
30 - 59 Days	486	4,256,394.14	0.12	0.10	530,581.70	0.12	7,776,409.65	0.22	0.21
60 - 89 Days	245	1,732,531.03	0.05	0.05	562,156.09	0.32	4,653,929.57	0.13	0.17
90 - 119 days									
120 - 149 days									
150 - 179 days									
>= 180 days									

Performance History



ISSUANCE TRENDS AND CURRENT CREDIT OUTLOOK AMID INFLATION AND MACRO TRENDS

MUDASAR CHAUDHRY, DBRS



European Structured Finance Issuance Trends and Credit Outlook

10 November 2022

Mudasar Chaudhry

Senior Vice President,
Head of European Structured Finance Research



Agenda

Securitisation Issuance Breakdown

Relationship Between ESG and Credit Ratings

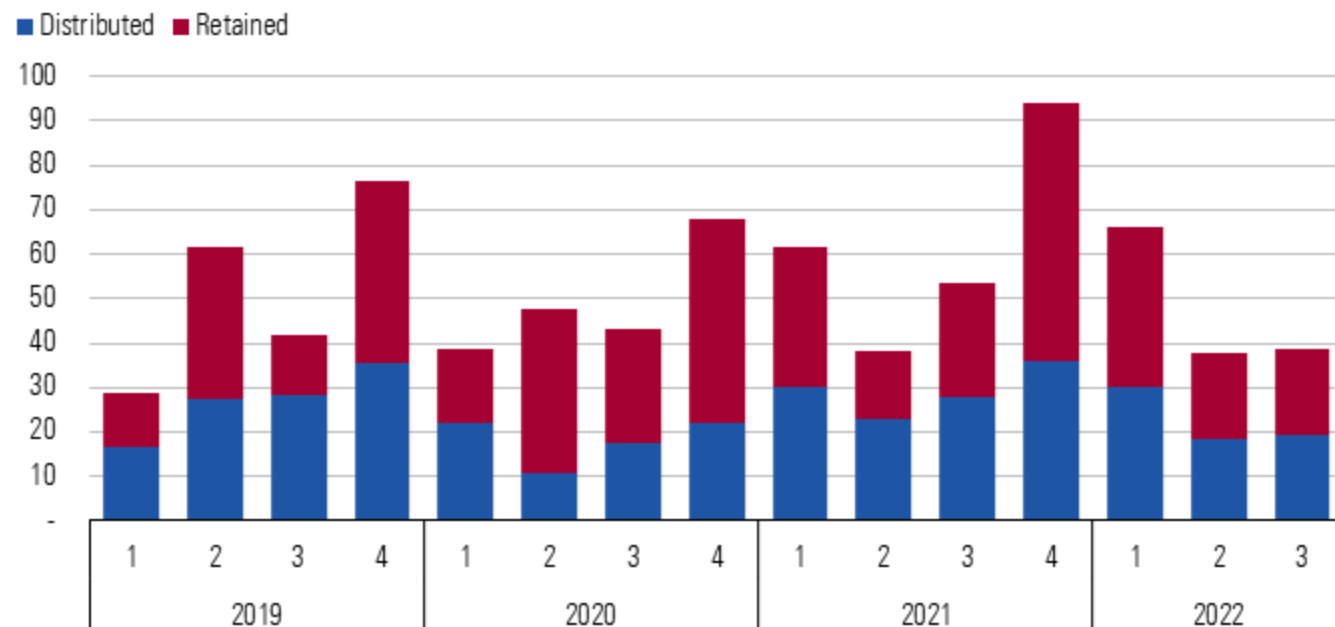
Macroeconomic Factors Affecting the European Securitisation Market

European Housing Markets

Summary

European Securitisation Quarterly Issuance

Retained vs. Distributed, 2019 – Q3 2022 (EUR billions)



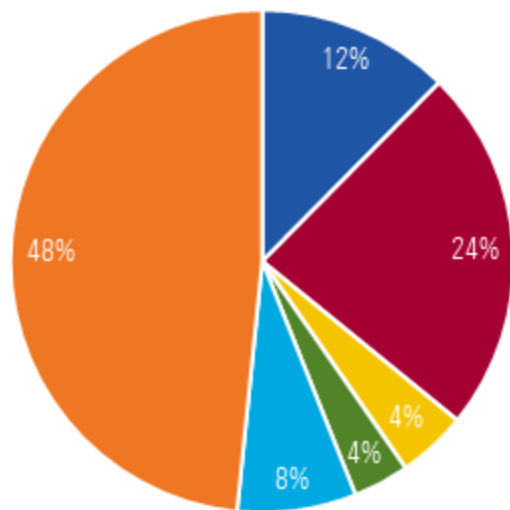
Source: ConceptABS and DBRS Morningstar.

- There was solid Q1 2022 issuance; strongest Q1 issuance post global financial crisis.
- Q3 2022 issuance was EUR 38.7 billion, 27.3% lower than Q3 2021.
- In Q3, EUR 19.4 billion was placed, representing 50% of the total.
- As at the end of Q3 2022, total issuance was EUR 142.9 billion, which is down 7% on a year-over-year (YOY) basis.
- 47% of year-to-date issuance is distributed issuance, which is 16% lower compared with last year.

Issuance Volume by Sector, Q3 2021 and Q3 2022 (Total Issuance)

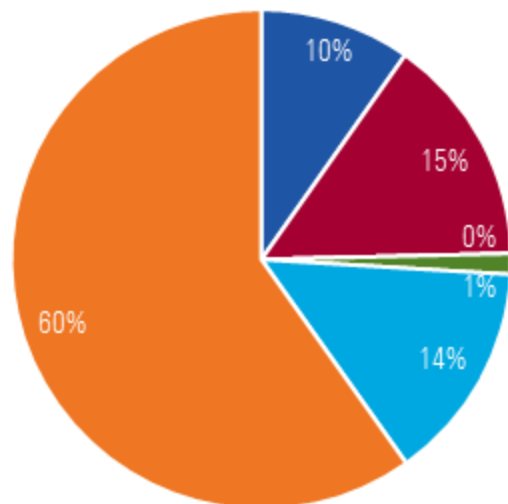
Q3 2021

■ Auto ■ CLO ■ CMBS ■ Commercial ■ Consumer ■ RMBS



Q3 2022

■ Auto ■ CLO ■ CMBS ■ Commercial ■ Consumer ■ RMBS

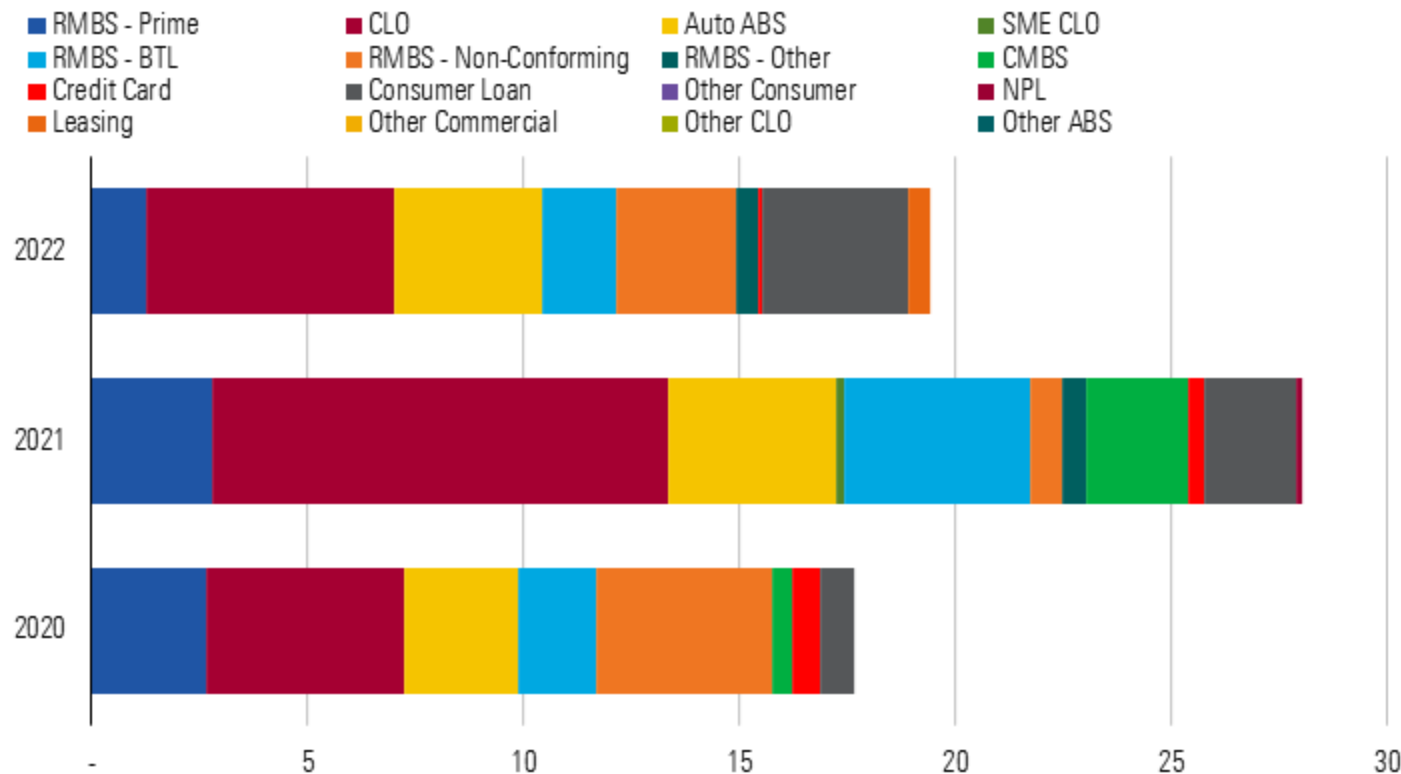


Source: ConceptABS and DBRS Morningstar.

- Auto ABS declined as a percentage of issuance to 7% from 11%.
- CLO volumes fell to 15% from 25%.
- Commercial ABS decreased to 1% from 4%.
- RMBS became more dominant with a 12% increase to 60%.
- Similar to the last few years, Q3 tends to be a quiet quarter for NPLs. Issuance on Q3-over-Q3 basis has been 18% lower in 2022 than in 2021.

Distributed Issuance by Subsectors

Distributed Issuance by Sector, Q3 by Year, 2020–22 (EUR billions)

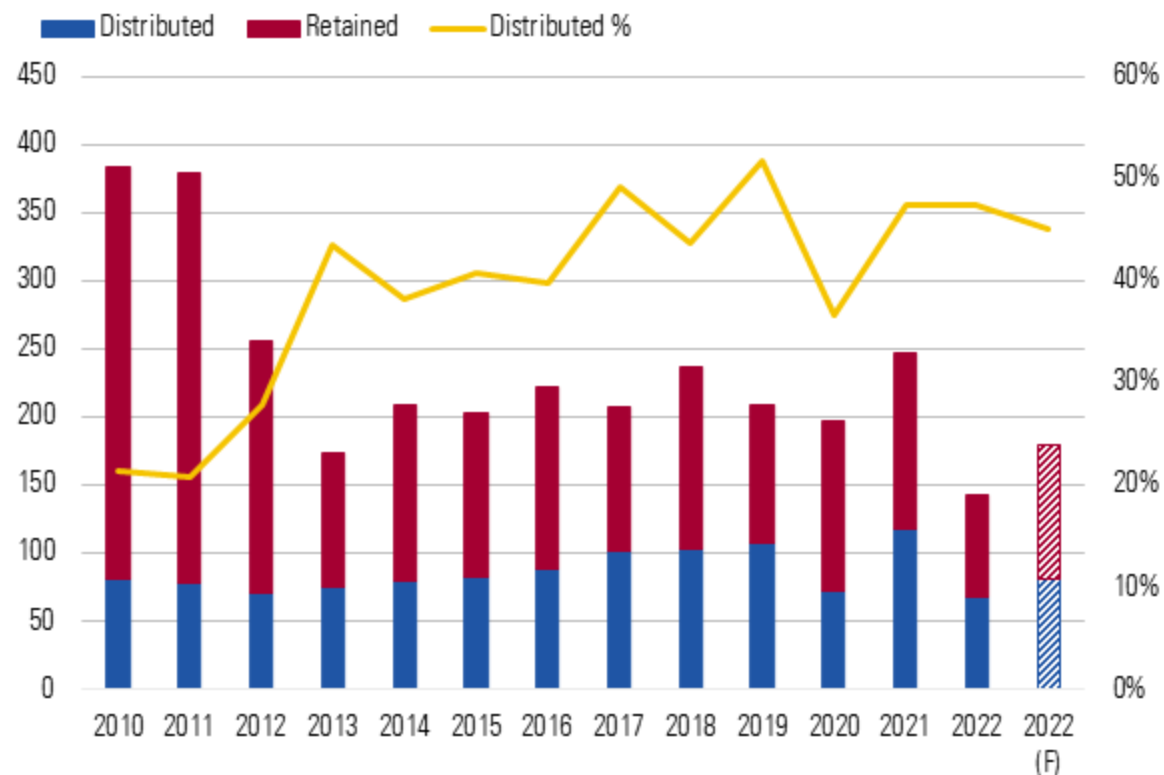


- In Q3, broadly syndicated CLOs led the way for distributed issuance, followed by RMBS and auto ABS.
- There was no CMBS or NPL issuance in Q3.
- Across the board, most sectors showed some decline in volume compared with issuance in Q3 2021, except for nonconforming RMBS and consumer ABS.

Source: ConceptABS and DBRS Morningstar.

European Securitisation Issuance Volumes

European Securitisation Issuance Volumes and 2022 Forecast (EUR billion)

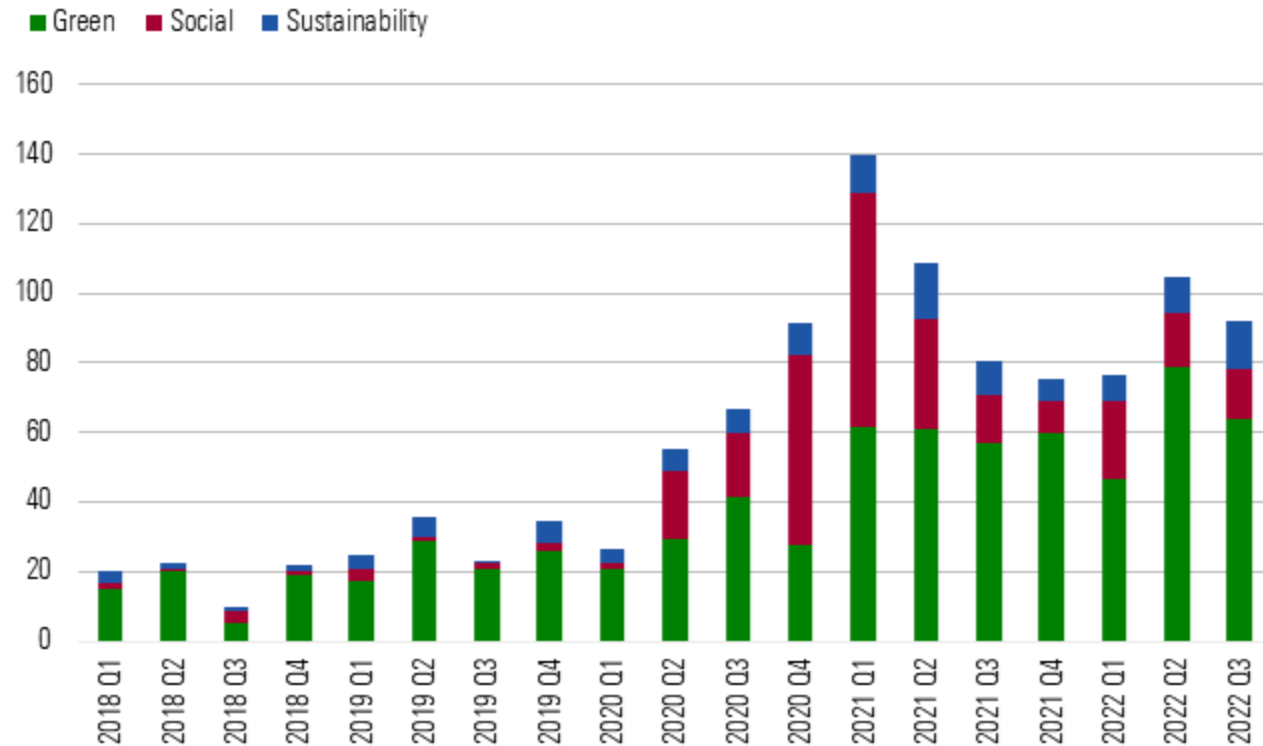


Source: DBRS Morningstar, Concept ABS.

- We have revised our previous forecast of total European securitisation issuance downward due to the current market and macroeconomic conditions.
- DBRS Morningstar expects 2022 European securitisation issuance of EUR 180 billion to EUR 190 billion, 45% to 50% of which is expected to be distributed issuance.
- The slowdown in cash securitisation issuance and, to some extent, regulatory changes have propelled the increase in European synthetic securitisation transactions, which are largely private and unrated.

ESG-Related Issuance (Green and Social Bonds)

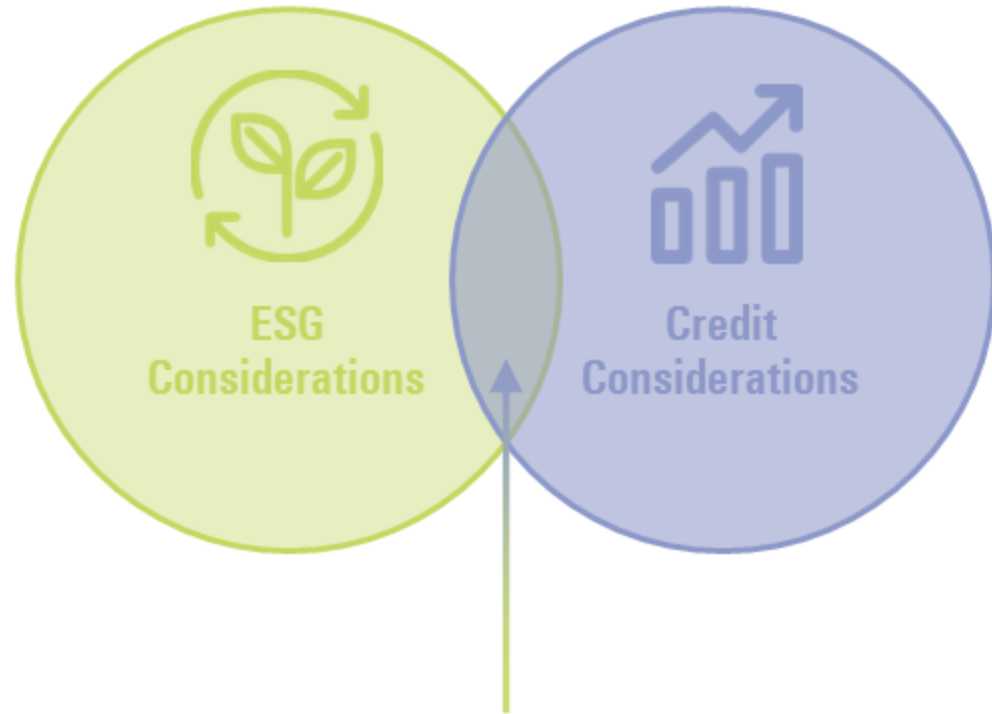
European ESG-Related Bond Issuance (EUR billion)



- Green bond issuance almost doubled in 2021 to EUR 239 billion from EUR 119 billion in 2020.
- As at Q3 2022, green bond issuance stood at EUR 189 billion and, at this rate, is likely to surpass the record issuance in 2021.

Sources: DBRS Morningstar and Dealogic.

Relationship Between ESG and Credit Ratings



Credit considerations that are also ESG considerations = **Credit-Relevant ESG Factors**

- As a credit rating agency, DBRS Morningstar evaluates the impact that ESG-related financial risks can have on a company's creditworthiness.
- Sustainability-focused ESG research firms (e.g., second-party opinion (SPO) providers) opine on all forms of ESG factors that may or may not ultimately have a financial impact on companies.
- While ESG sustainability factors look at how issuers' decisions affect society and the environment, ESG credit factors look at how society and the environment affect issuers and their financials. DBRS Morningstar assesses credit risk, not sustainability.

DBRS Morningstar's Approach to ESG Factors in Credit Ratings

- The DBRS Morningstar ESG credit assessment framework encompasses up to 17 ESG factors in its ratings across various groups.

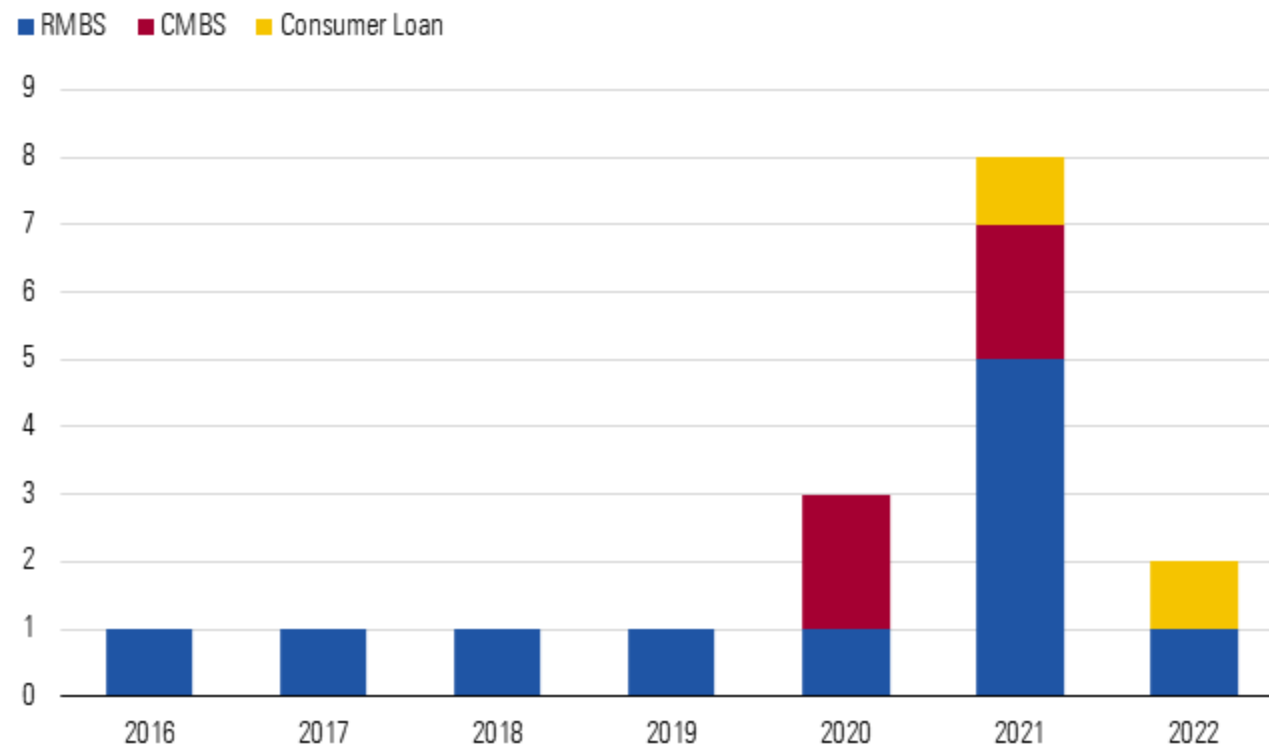
Environmental	Social	Governance
<ul style="list-style-type: none">• Emissions, Effluents, and Waste• Carbon and Greenhouse Gases• Resource and Energy Management• Land Impact and Biodiversity• Climate and Weather Risks	<ul style="list-style-type: none">• Social Impact of Products and Services• Human Capital and Human Rights• Product Governance• Data Privacy and Security• Occupational Health and Safety• Community Relations• Access to Basic Services	<ul style="list-style-type: none">• Bribery, Corruption, and Political Risks• Business Ethics• Corporate/Transaction Governance• Institutional Strength, Governance, and Transparency• Peace and Security

- A "Relevant" factor means that the impact of the applicable ESG factor has affected the credit analysis, but not changed the rating or its trend on the issuer.
- A "Significant" factor means that the impact of the applicable ESG factor has changed the rating or rating trend on the issuer.
- The impact of a "Relevant" or a "Significant" ESG factor on an issuer's credit rating can be either negative or positive, and these are disclosed in related press releases.
- To further increase transparency, ESG checklists will be included in other DBRS Morningstar research such as rating reports and presale reports.

ESG Factors Affecting Credit Ratings

Structured Finance with SPOs (Green or Social Bonds)

SPO Securitisation Transactions, by Sector, 2016 to Q3 2022 (Number of Deals)

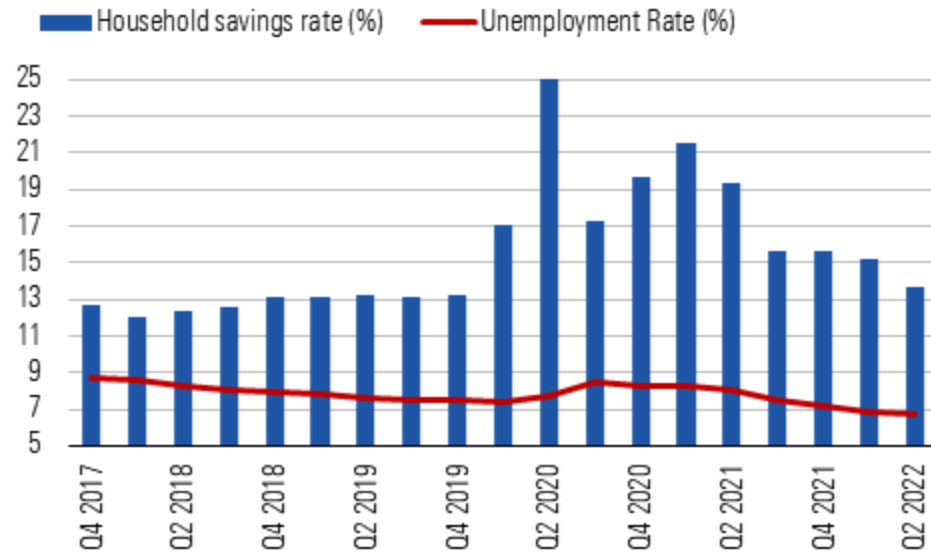


Source: DBRS Morningstar.

- DBRS Morningstar rated 8 out of 17 European securitisation transactions that carry SPOs.
- Except for one UK RMBS transaction, we did not consider ESG factors to be “Relevant” for any of the DBRS Morningstar-rated securitisation transactions that carry SPOs.
- The “Relevant” social factor in the UK RMBS transaction was credit negative.
- Except for this UK RMBS transaction, none of the bonds for which we deemed ESG factors to affect the credit analysis carry an SPO.

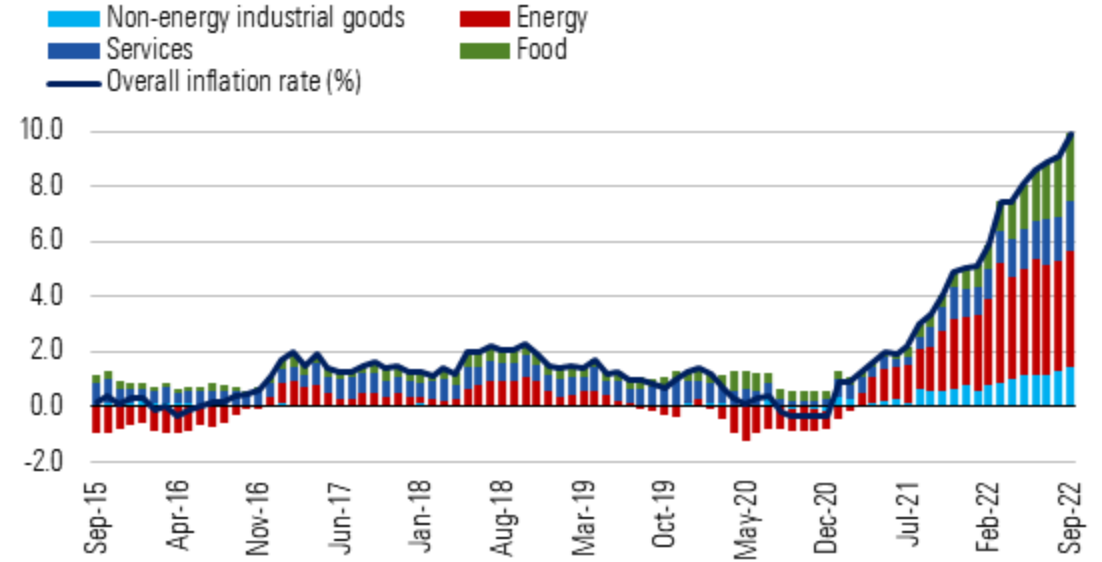
Euro Area (EA) Macroeconomic Indicators

Unemployment Rate and Household Savings



- In some EA countries, consumer confidence is lower than during the Coronavirus Disease (COVID-19) pandemic.
- EA inflation is likely to remain elevated for some time.

Contributions to Annual Inflation (% Points, YOY)

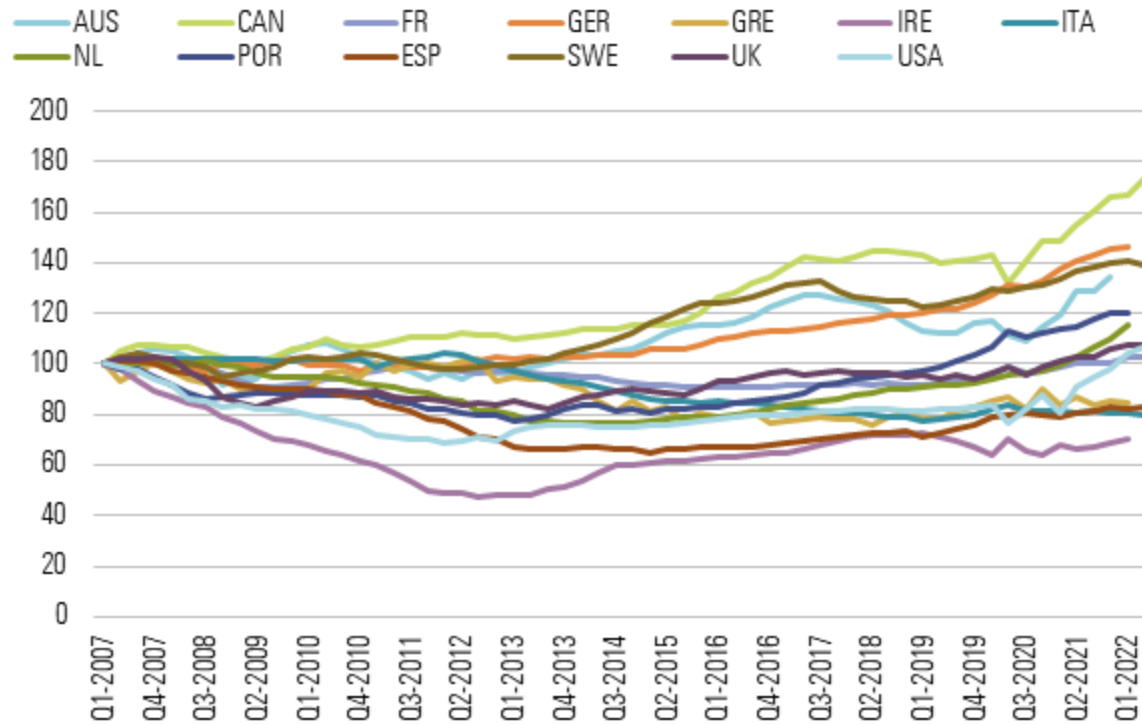


- EA energy price pressures are set to persist.
- Further increases in interest rates are expected.

Source: Eurostat, European Commission, Haver Analytics, DBRS Morningstar.

Impact of Inflationary Environment on the Housing Market

House Price to Net Disposable Income (2007=100)

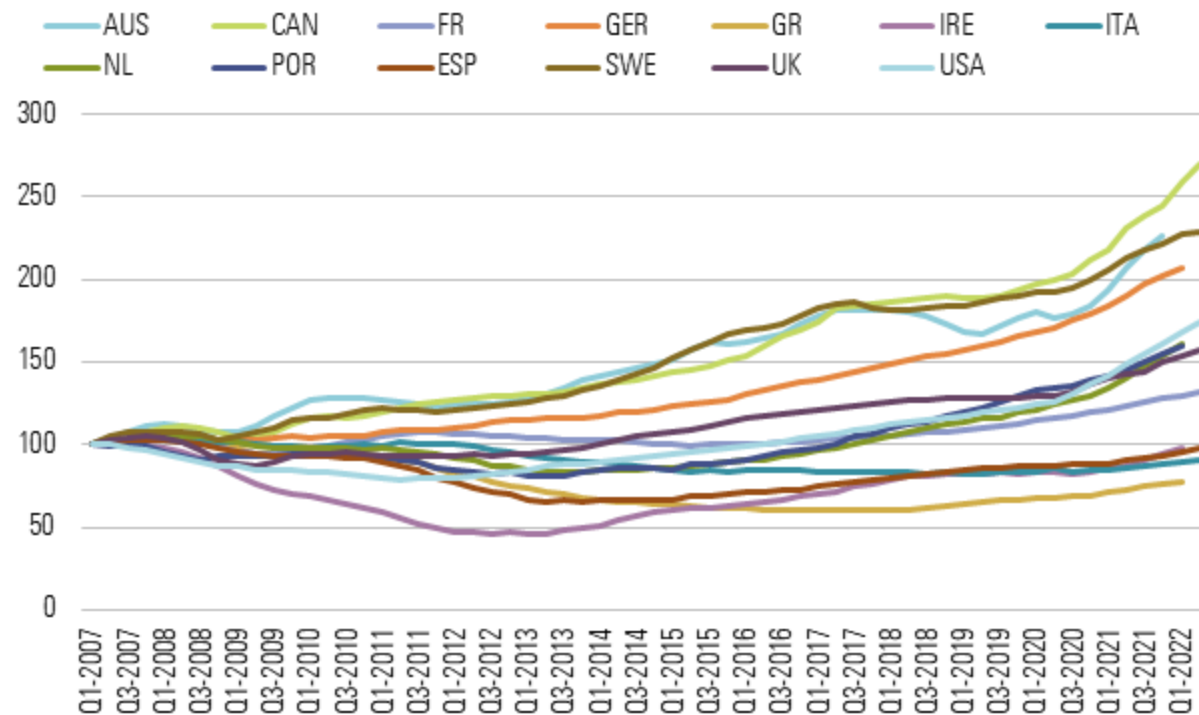


Source: OECD.

- Factors driving house prices:
 - Affordability
 - Confidence (in the short term)
- Price correction underway in many markets due to interest rate rises (Australia, New Zealand, Canada, Sweden)
- How will European housing markets be affected, considering high inflation, rising interest rates, and expected macroeconomic weakness?

Impact of Inflationary Environment on the Housing Market (continued)

House Prices since Global Financial Crisis (2007=100)



Source: OECD.

- Are we in better or worse position than following the global financial crisis in Europe?
 - Higher indebtedness
 - Increasing interest rates
 - Central banks might not be able to reduce rates quickly
- But...
 - Better credit standards
 - Low unemployment
 - Limited supply of new housing and few forced sellers to date

Impact of Inflationary Environment on Mortgage Performance

- Deterioration in mortgage performance
- Differing impact on borrowers
 - Fixed vs. floating rate
 - Different inflation levels in different countries
 - Mortgage interest rates
 - Prime vs. nonprime borrower
 - Owner occupied vs. buy to let
- Key drivers of mortgage performance:
 - Unemployment rate
 - Wage/income growth
 - Credit availability
 - House prices

Credit Performance – The Consumer ABS Market

	Interest Rates	Inflation Pressure
Term Loans (Unsecured)	Limited Vulnerability Prepayments may be affected	Moderate Vulnerability
Auto Loans (Secured)		Low Vulnerability
Salary Assignment Loans (Secured)		Low Vulnerability
Credit Cards / Revolving Credit	Moderate Vulnerability	High Vulnerability

Summary

- Across the board, most European securitisation sectors showed some issuance decline in volume compared with issuance in Q3 2021, except for nonconforming RMBS and consumer loans.
- DBRS Morningstar assesses the credit impact of ESG factors (either positive or negative) on the credit analysis backed by data, where available; otherwise DBRS Morningstar considers qualitative factors.
- Rising inflation in isolation is not necessarily bad for asset-backed products. Rising interest rates in isolation is not necessarily bad for floating-rate structured finance bonds but a combination of worsening macroeconomic indicators affect borrower affordability and could hence affect the credit performance of securitised portfolios.
- We expect some deterioration in collateral performance depending on jurisdiction, asset class, and depth of cost-of-living crises.

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NPL MARKET UPDATE

FULVIO PELARGONIO

EBA NPL data templates considerations

EDW day

Athens 11 Nov 2022



fulvio.pelargonio@nplmarkets.com
Head of Business Development

November 2022

NPL Markets: what do we do?

NPL Markets' platform is designed to provide a centralized solution to data preparation, analytics and reporting, with direct access to an electronic marketplace for buying and selling performing and non performing loans. NPL Markets has the mission to maximize trading efficiency, reduce the cost of any asset disposal process and to value any type of illiquid loans



Data Preparation & Enrichment

Automated data transformation and mapping tool allowing Users to standardise portfolio data to desired regulatory template (EBA NPL, ESMA, EBA Valuation in Resolution) & additional investor templates



Valuation & Analytics

Press-of-button statistical valuation for optimal deal design, bank balance sheet impact and future flows. Single name, granular portfolios, and bespoke valuation clusters. NPL, UtP and Performing



Marketplace

Independent multi-jurisdictional self service electronic marketplace for NPL, UtP and performing portfolios & single names, delivering cost efficiency and transparency



Reporting

Seller and investor reports for performing & non-performing loans & securitisations with period-on-period consistency checks, original business plan versus actual. eg EBA, ESMA and Valuation in Resolution reporting

NPL Markets: who are we?

- NPL Markets operates in 27 jurisdictions mainly in Europe, US, Canada, Brazil, Mexico and South Africa
- 850 institutional investors, 1.7m non-performing loans uploaded and valued across 870 portfolios
- More than 5m performing loans mapped and valued on the platform
- Access to derived data from over 15m loans, both performing and non-performing
- Our main clients include banks, specialised lenders, asset managers, hedge funds, private equity and servicers

Supranational partners

- NPL Markets has a cooperation agreement with the International Finance Corporation (IFC) in Brazil and Mexico
- NPL Markets sits on the European Commission NPL Advisory Panel

International data partners

- Global Credit Data (55 global banks pooling wholesale loan recovery data since 2004)
- European Data Warehouse for securitisation performance

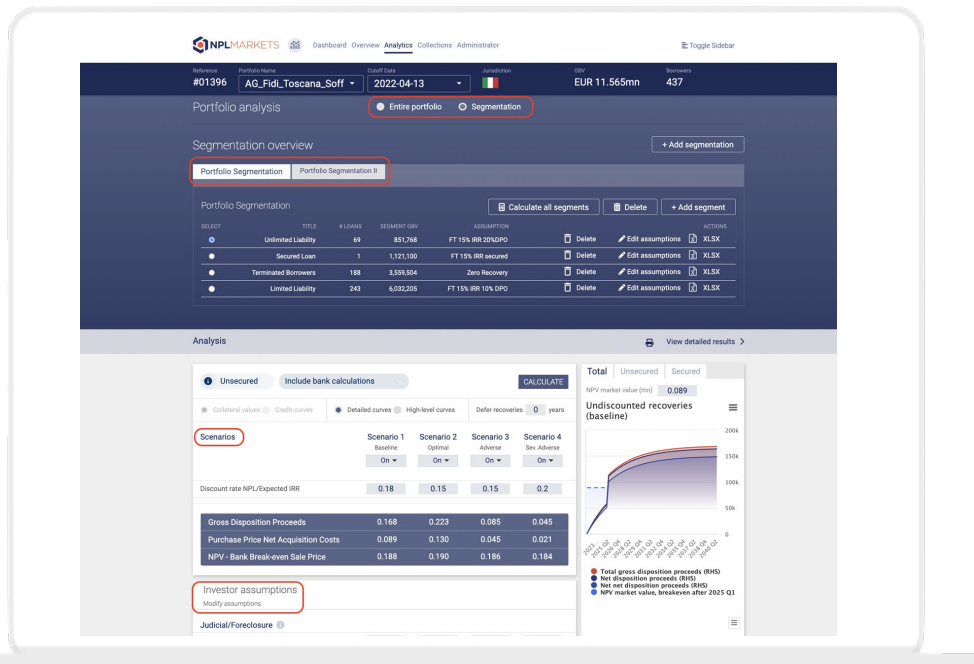
Research & Awards

- Global NPL monitor and projections based on IMF WEO scenarios <https://NPLMarkets.com/en/research>
- Structured Credit Investor 2022 Award: Contribution to Market Development

Valuation & Analytics - NPLs

AUTOMATED PORTFOLIO VALUATION

- ‘Click of a button’ valuations: Gross proceeds & NPV pricing
- Value entire portfolio or individual segments in minutes
- Prepopulated valuations based on NPL Markets default market metrics derived from 15 million loans recorded
- Metrics available for all European markets, US, Brazil, Mexico & South Africa
- Bank break-even pricing to calculate Bank sell price taking into account capital requirements and calendar provisioning
- Perform detailed business plan analysis for portfolio disposal



HAPS VS GACS
Data Disclosure



GACS Vs Haps Transparency

GACS VS HAPS AVAILABILITY OF DATA

Information on HAPS is very limited and restricted to investors as HAPS have been structured as private transactions with private ratings.

In contrast, GACS are private securitisations with public ratings and hence performance information is generally publicly available at transaction level.

GACS and HAPS are not ECB repo eligible and loan-level data are available only to existing and potential investors as per securitisation regulation. Business Plans are not covered by mandatory securitisation disclosures.

SUGGESTION ON HAPS

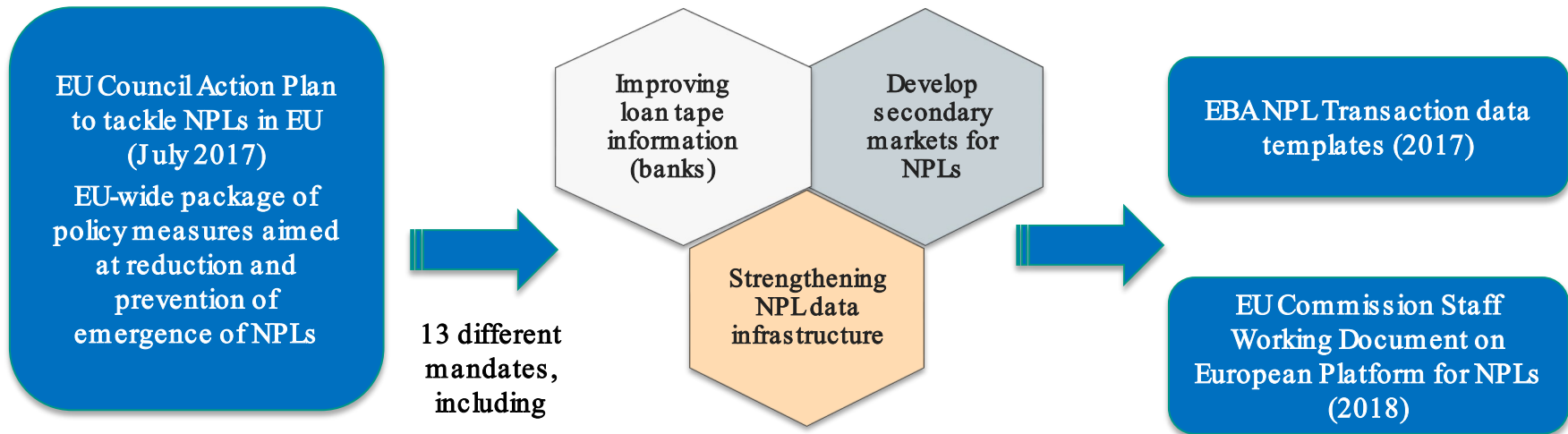
HAPS pool and collections information are relevant to facilitate pricing of NPE securitisations and private sales. In order to facilitate the circulation of info without disclosing sensitive data we suggest to choose a private repository to store more data: e.g. pool tape, monthly reporting. Advanced analytics allows the seller to monitor their retained positions and can help new investors to become active in the secondary trading of the HAPS notes.

GACS: GENERALLY AVAILABLE INFORMATION		
TYPE	INFORMATION	DISTRIBUTION
Rating Reports	Deal features and rating rationale	Public / Rating agency distribution
Prospectus	Standard Prospectus directive	Public
Rating research	Rating/Collections/performance (actual)	Rating Agency Distribution
Investor Reports	Stratifications/Aggregate Collections	Investors
Loan level data	Line by line pool tape/collections	Servicer/Investors
Business Plan	Expected collections	Not available

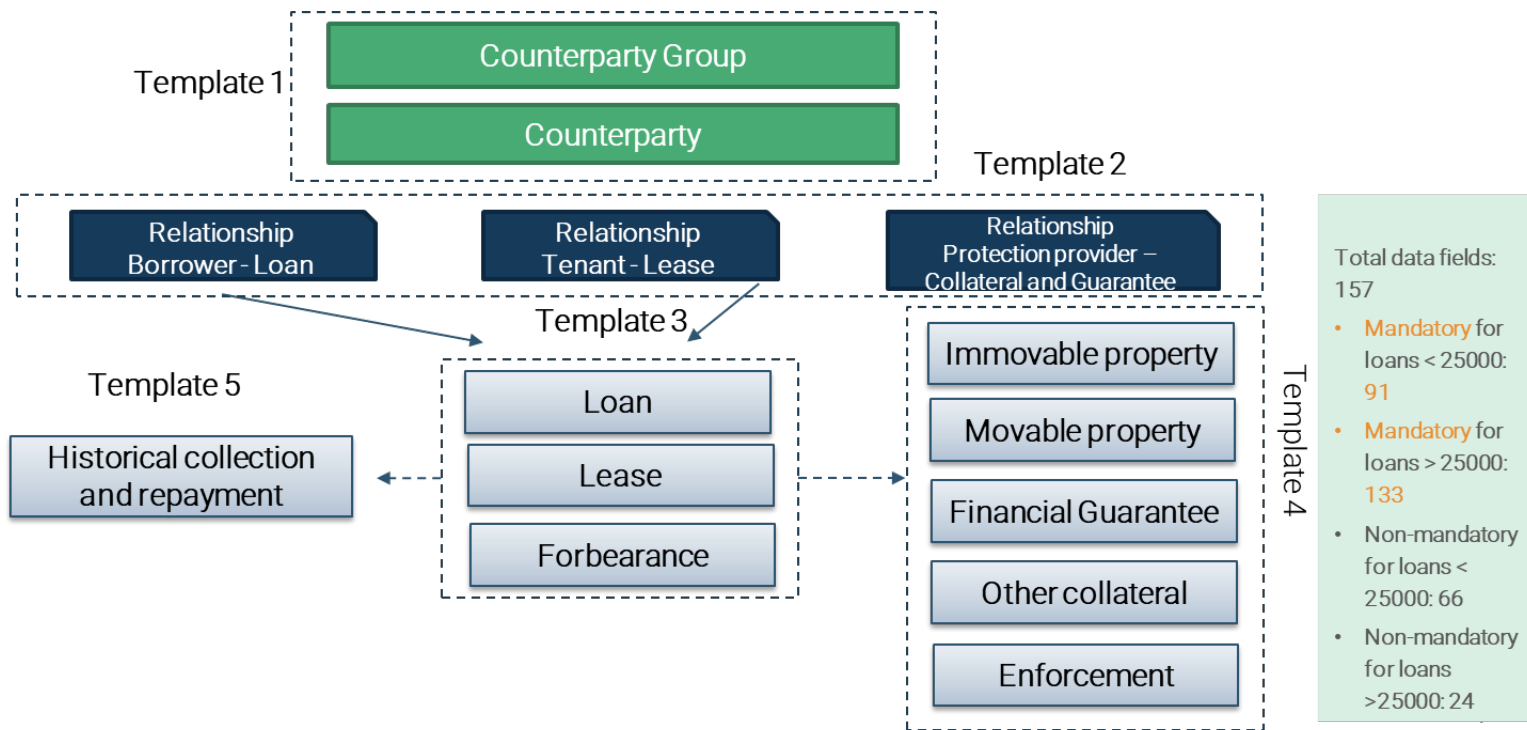
EBA NPL Template



EBA NPL Templates in perspective



Standardized Data For NPLs: EBA NPL Transaction Data Templates



EBA NPL Transaction Data Templates. NPLM Key Points

- EBA Templates Compulsory for bank sales
- EBA templates capture the essence of pools
- Standardisation is a key step to manage sellers/buyers expectations on data
- Non compliance : sanctions not imposed by EBA. Competent regulators' duty
- Number of data fields reduced to a minimum
- Mandatory data fields with "no data" option need to be balanced
- Additional fields allowed?
- May have little impact on market efficiency unless collected in Data Hub

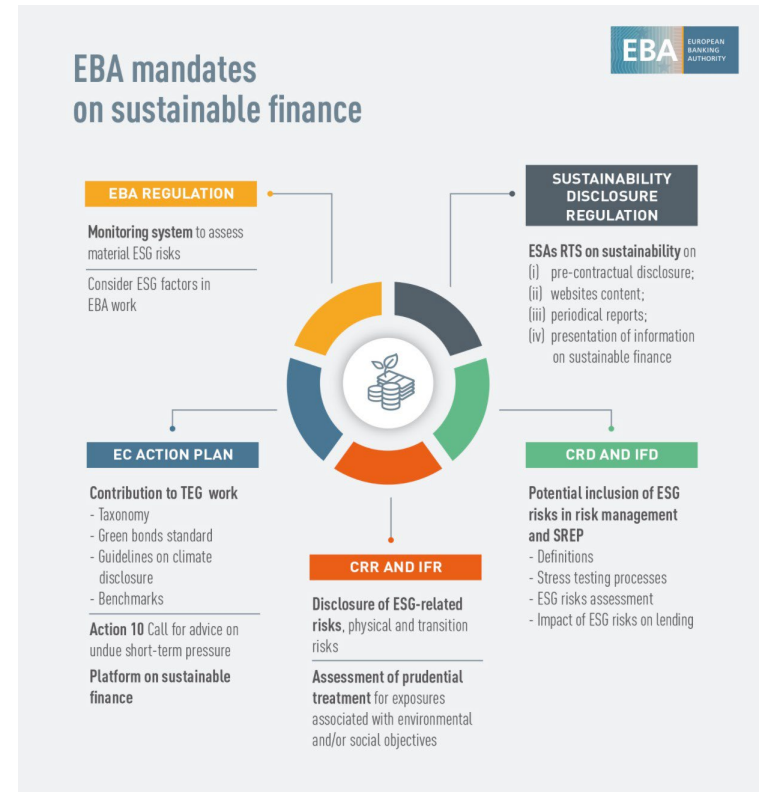
Reporting Requirements by type of seller and sale format		
	Non Bank	Bank
Straight Sale	N.A.	EBA
Securitis ation	ESMA Reporting	ESMA Reporting

ESG and Securitisation



ESG in the context of Securitisation

- ESG framework involves risk, capital, disclosure requirements on various element of the Financing industry
- Securitisation is part of the capital market leg of raising funds and investing and, being able to segregate assets, naturally lends itself to carve out ESG part of Financial Institutions balance sheets
- EBA released a “Report on developing a framework for sustainable securitisations” in March 2022 suggesting to follow the Green Bond Standard (EU Commission legislative proposal 2021/0191 COD) roadmap and establishing a dedicated framework for ABS
- Securitisation is peculiar in that combines
 - Hydiosincratic risk – loan by loan / borrowe disclosure
 - Aggregated risk – portfolio metrics
 - Multiple parties (Originator, SPV, Servicer)



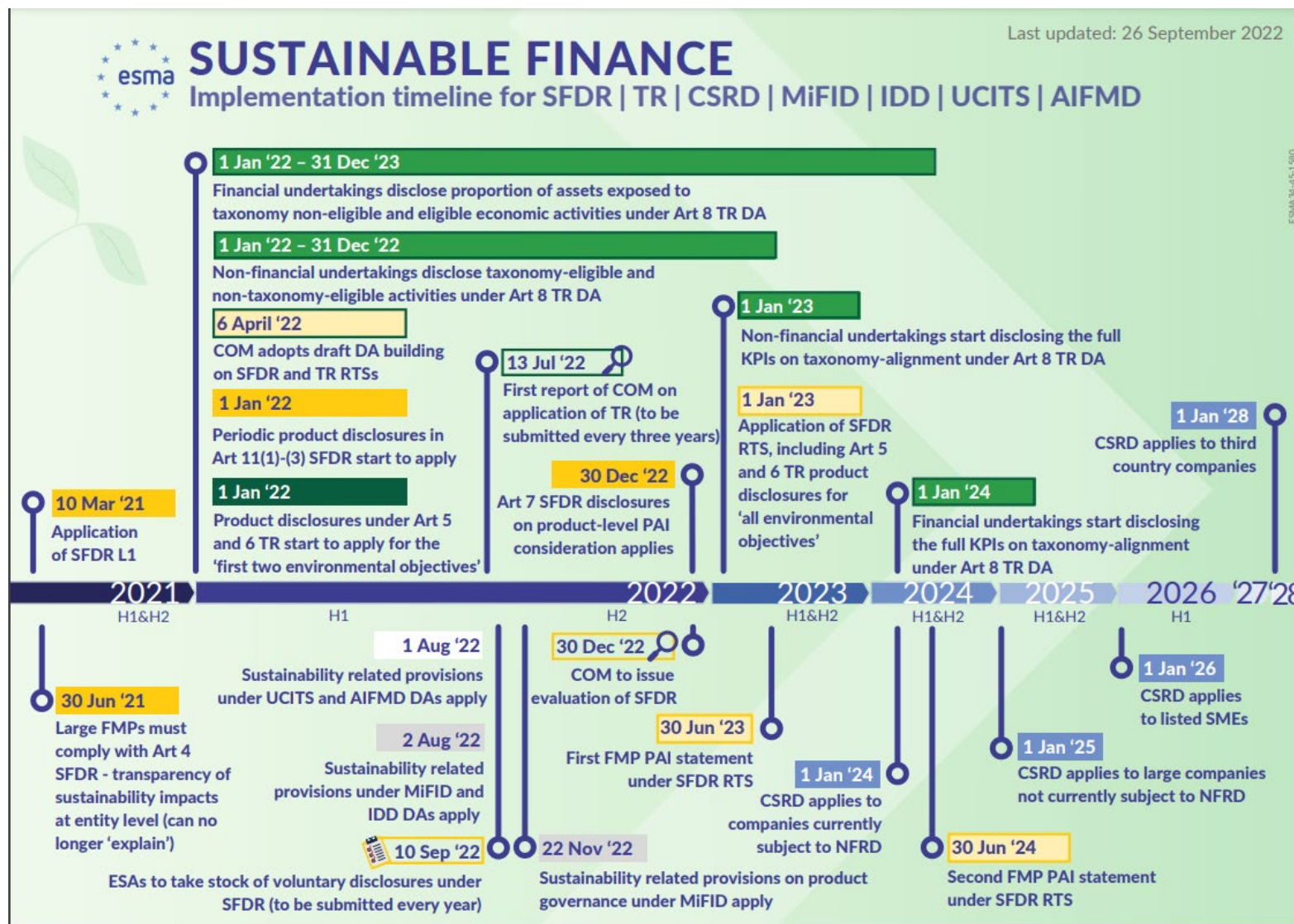
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EDW'S INVOLVEMENT IN SUSTAINABLE FINANCE

MARTIN KUHN

ESMA ROADMAP FOR SUSTAINABLE FINANCE (1/2)



ESMA ROADMAP FOR SUSTAINABLE FINANCE (2/2)

esma **SUSTAINABLE FINANCE**
Implementation timeline for SFDR | TR | CSRD | MiFID | IDD | UCITS | AIFMD

Legend

- Taxonomy Regulation (TR) L1
- Taxonomy Regulation Article 8 Delegated Act (DA)
- Sustainable Finance Disclosures Regulation (SFDR) L1
- SFDR RTS - Joint ESAs draft Regulatory Technical Standards (RTS)
- MiFID and IDD DAs
- UCITS and AIFMD DAs
- Corporate Sustainability Reporting Directive (CSRD) – final text

- **'First FMP PAI statement'**: First reference period for the Financial Market Participant (FMP) first Principal Adverse Impact (PAI) statement on 30 June 2023 must be 1 Jan – 31 Dec 2022
- **'First two environmental objectives'**: Point (a) (climate change mitigation) and point (b) (climate change adaptation) of environmental objectives under Art 9 TR
- **'All environmental objectives'**: In addition to point (a) and (b) above, point (c) (the sustainable use and protection of water and marine resources), point (d) (the transition to a circular economy), point (e) (pollution prevention and control) and point (f) (the protection and restoration of biodiversity and ecosystems) of environmental objectives under Article 9 TR
- **'Art 5 and Art 6 TR'**: Transparency of environmentally sustainable investments (Article 5) and of financial products that promote environmental characteristics (Article 6) in pre-contractual disclosures and in periodic reports
- **'Art 8 TR DA'**: Transparency of undertakings in non-financial statements
- **'COM adopted DA bundling SFDR and TR RTSs'**: COM bundled all 13 RTS of the SFDR, including the new empowerments for RTS introduced by the TR in one single DA (Commission Delegated Regulation EU 2022/1288)
- **Companies currently subject to NFRD (Non-Financial Reporting Directive)**: requirements apply to financial years (FYs) starting on / after 1 January 2024, first reporting in 2025
- **Large companies not currently subject to NFRD**: requirements apply to FYs starting on / after 1 January 2025, first reporting in 2026
- **Listed SMEs**: requirements apply to FYs starting on / after 1 January 2026, first reporting in 2027 (opt-out possible until 2029)
- **3rd country companies**: requirements apply to FYs starting on / after 1 January 2028, first reporting in 2029

- European Commission evaluation Reports
- ESAs Report on voluntary disclosures under SFDR

ESMA/34/AS/1580

EDW'S INVOLVEMENT WITH SUSTAINABLE FINANCE (EXAMPLES)

	Green Auto Securitisation (GAS) project	Energy Efficient Mortgages Hub Netherlands	EC Environment and Climate Action (LIFE) Grant: ENGAGE
Description	<ul style="list-style-type: none"> Sustainable finance is a priority for the Climate Protection Plan (KSP) 2050 SAFE Research Center and EDW applied for KlimFi's grant with a project which links climate protection with the financial sector and auto ABS securitisations 	<ul style="list-style-type: none"> New Energy Efficient Mortgages Hub Netherlands (EEM NL Hub) established by market participants in the Dutch RMBS The NL Hub is supported by the European Covered Bond Counsel (ECBC) and the European Mortgage Foundation (EMF) 	<ul style="list-style-type: none"> EDW is part of consortium that won a European Commission (EC) grant via Programme for the Environment and Climate Action (LIFE) The EC LIFE grant LIFE-2021-CE: <ul style="list-style-type: none"> Mainstreaming sustainable energy finance and integrating energy performance in EU sustainable finance criteria and standards
Partners	<ul style="list-style-type: none"> Leibniz Institute for Financial Research SAFE Jan Pieter Krahenen (<i>Full Pr. at Goethe University, Scientific Director of SAFE</i>) Loriana Pelizzon (<i>Full Pr. at Goethe University</i>) 	<ul style="list-style-type: none"> Energy Efficient Mortgages NL Hub (<i>EDW being a founding member</i>) 	<ul style="list-style-type: none"> Hypoport UCI and Woonu (<i>pilot banks</i>) Ca' Foscari University Dexai Artificial Intelligence
Timeline	<ul style="list-style-type: none"> Project start date: NOVEMBER 2022 Length: 3 years 	<ul style="list-style-type: none"> Ongoing 	<ul style="list-style-type: none"> Project start date: November 2022 Length: 3 years

LEIBNIZ INSTITUTE SAFE AND EUROPEAN DATAWAREHOUSE WIN GRANT

Research project examines financing of low-emission vehicles through bank lending



PRESS RELEASE

Leibniz Institute SAFE and European DataWarehouse win grant under the Climate Protection and Finance funding initiative

Research project examines financing of low-emission vehicles through bank lending

FRANKFURT, GERMANY – 4 OCTOBER 2022 – The Leibniz Institute for Financial Research SAFE and the Securitisation Repository European DataWarehouse (EDW) have been awarded a grant from the German Federal Ministry for Education and Research under the Climate Protection and Finance (KlimFi) funding initiative to undertake a three-year project for the promotion of the green auto asset-backed securities (ABS) market.

The project called “Green Auto Securitisation” (GAS) aims to create meaningful incentives for the automotive industry, as well as stakeholders and end users, to design a framework for a green finance mechanism that supports the financing of low-emission vehicles (LEVs) through bank lending.

“SAFE will be responsible for carrying out an in-depth analysis of the probability of default of car owners for electric vehicles vs. less efficient means of transport across countries and vintages with the aim of developing an appropriate risk framework with specific incentives,” says Loriana Pelizzon, Director of SAFE’s Financial Markets Research Department, who coordinates the project for the Leibniz Institute.

“EDW is pleased to continue leveraging its database to promote lending and financing of the real economy via car loans and leasing whilst at the same time reducing emissions and working towards European Commission targets,” adds Christian Thun, CEO of EDW.

Creating a database for ESG information

Specifically, the GAS project will contribute to the objectives of the KlimFi funding initiative by means of proposing a framework for new, climate-friendly products, and by improving data quality and availability through the creation of a mockup database for ESG information. The database would facilitate the reporting of ESG-related information at single exposure level and the enrichment of loan and lease-level data with manufacturers’ ESG ratings and details on car emissions and characteristics. In this context, EDW will develop the ESG database as useful tool for the study of the nascent

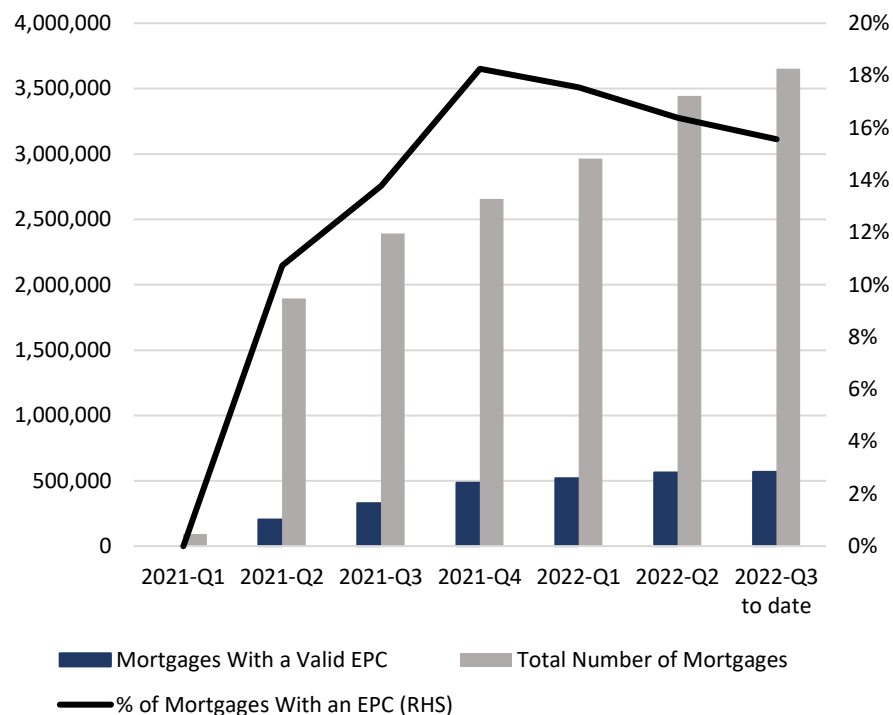
“EDW is pleased to continue leveraging its database to promote lending and financing of the real economy via car loans and leasing whilst at the same time reducing emissions and working towards European Commission targets”

ENERGY PERFORMANCE CERTIFICATES – HOW MUCH DATA IS AVAILABLE?

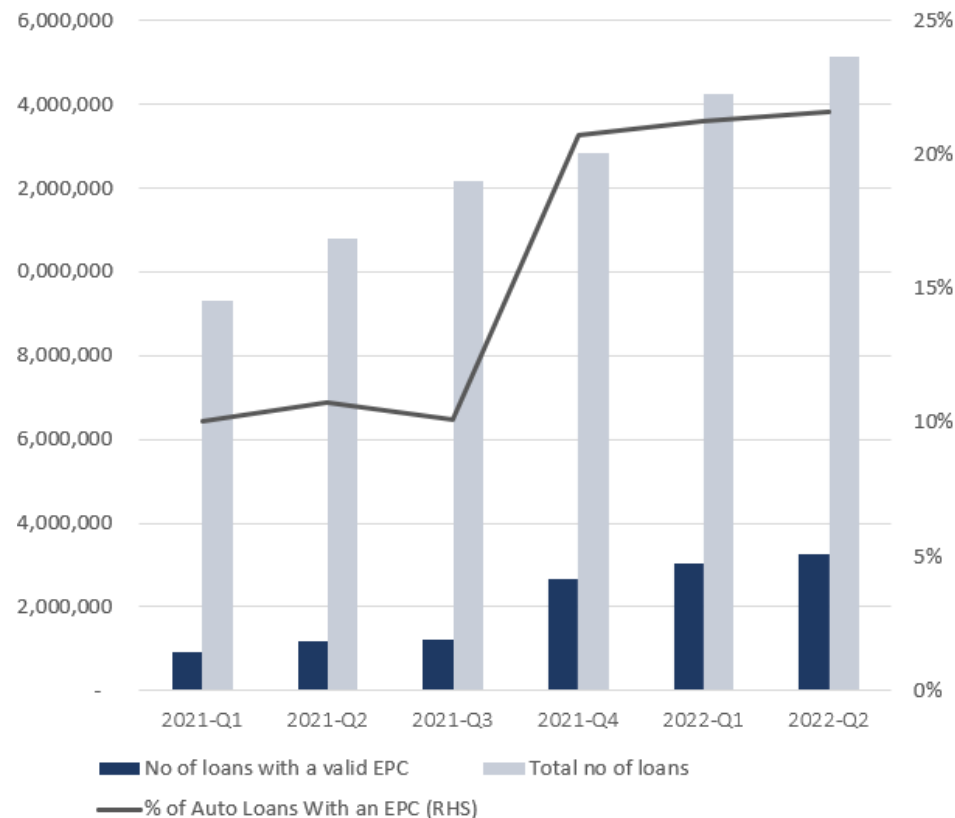
Data availability for EPCs is stagnating

MORTGAGES (RMBS)

Number of Loans Reporting a Valid EPC in ESMA



AUTO LOANS



Source: EDW

CLOSING REMARKS

MARTIN KUHN



Q&A

THANK YOU//CONTACT US

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