EUROPEAN DATAWAREHOUSE

RESEARCH UPDATE

H1 2026

JUNE 2026

WELCOMING REMARKS

ON TODAY'S CALL

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AGENDA

OPENING REMARKS
LUDOVIC THEBAULT, EUROPEAN DATAWAREHOUSE

EDW RESEARCH PUBLICATIONS
LUDOVIC THEBAULT, EUROPEAN DATAWAREHOUSE

DATA AVAILABILITY REPORT
LUDOVIC THEBAULT, EUROPEAN DATAWAREHOUSE

PERFORMANCE INDICES
USMAN JAMIL, EUROPEAN DATAWAREHOUSE

A CLOSER LOOK AT ITALIAN CONSUMER ABS
USMAN JAMIL, EUROPEAN DATAWAREHOUSE

E-BIKES
LUDOVIC THEBAULT, EUROPEAN DATAWAREHOUSE

THE MOST DANGEROUS ASSET YOU CAN BY ON CREDIT...
LUDOVIC THEBAULT, EUROPEAN DATAWAREHOUSE

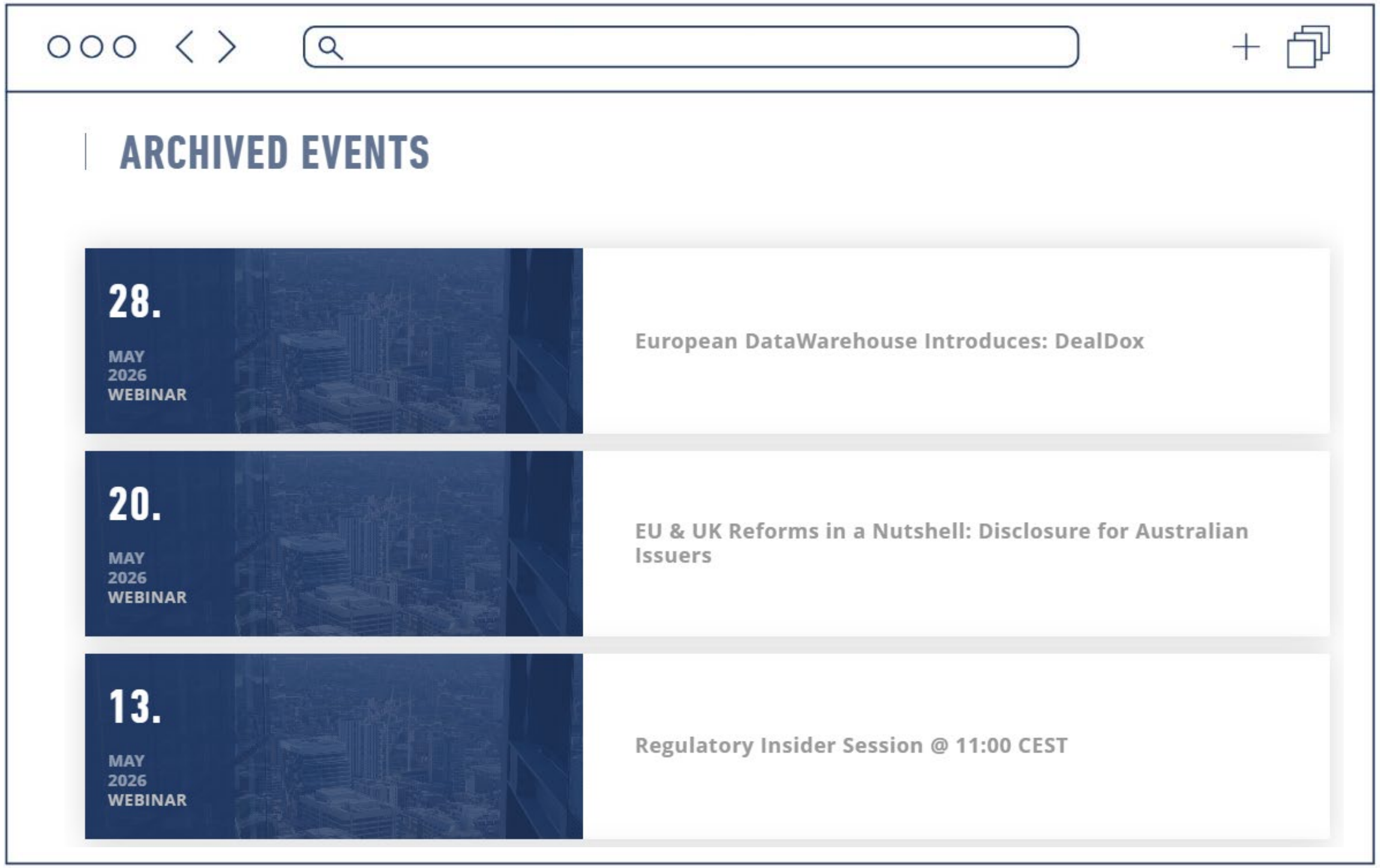
Q&A

UPCOMING EVENTS: H1 2026

EDW RESEARCH PUBLICATIONS

ARCHIVED EVENTS

RECORDS AND SLIDES OF PAST WEBINARS: https://eurodw.eu/news-events-and-multimedia/events/



European DataWarehouse Introduces: DealDox®

- Watch the full launch webinar for EDW's collaborative, secure and compliant data room, DealDox **here.**

RESEARCH SECTION

THIRD PARTY PUBLICATIONS USING OUR DATA: https://eurodw.eu/knowledge/research/

EXPLANATORY REPORT: 20 MAY 2026

Morningstar DBRS Rating Report "Climate Risk Navigator – European RMBS HEATmaps" May 13, 2026

EXPLANATORY REPORT: 20 MAY 2026

Do lenders price diesel risk? Evidence from Dieselgate and low-emission zones in captive vs. independent banks

EXPLANATORY REPORT: 13 MAY 2026

European Benchmarking Exercise (EBE) for Private Securitisations: H2-2025 Results

EXPLANATORY REPORT: 26 MARCH 2026

Data Availability Report Q4 2025

WHITEPAPER: 06 MARCH 2026

Private Securitisations in Repositories: Debunking Urban Legends

SPECIAL REPORT: 27 JANUARY 2026

EDW's ALL-IN-ONE Database Methodology Report

Latest publications

- EDW's All-In One Database Methodology
- Private Securitisations in Repositories
- Data Availability Report Q4 2025
- EBE for Private Securitisations : H2 2025
- ECB - Do Lenders price Diesel Risk
- Morningstar DBRS - Climate Risk Navigator

BLOG

SHORT ARTICLES ON CURRENT TOPICS: https://eurodw.eu/knowledge/magazine//

LATEST BLOGS

DATA IN USE | 19.06.2026
Motorcycle Finance: Separating Physical and Credit Risk

COMPANY BULLETIN | 17.06.2026
Global ABS 2026: From Cautious Recovery to a Market Focused on Execution

SECURITISATION REGULATION | 03.06.2026
EDW Responds to FCA Consultation, CP26/6 on Reforming the UK Securitisation Framework

COMPANY BULLETIN | 21.05.2026
EU Securitisation Reform: Laying a new foundation and What Comes Next

DATA IN USE | 13.05.2026
From "Other" to E-bikes: Using ESMA Free-Text Fields to Study Germany's E-Bike Leasing Market

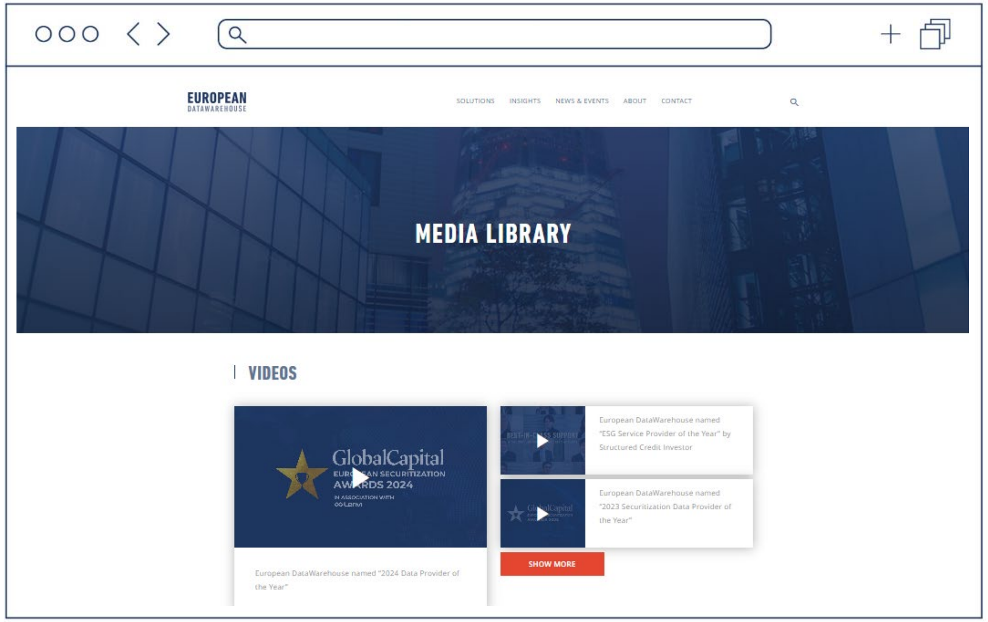
ESG | 30.03.2026
Green Auto Securitisation Project: Practical Insights and What Comes Next

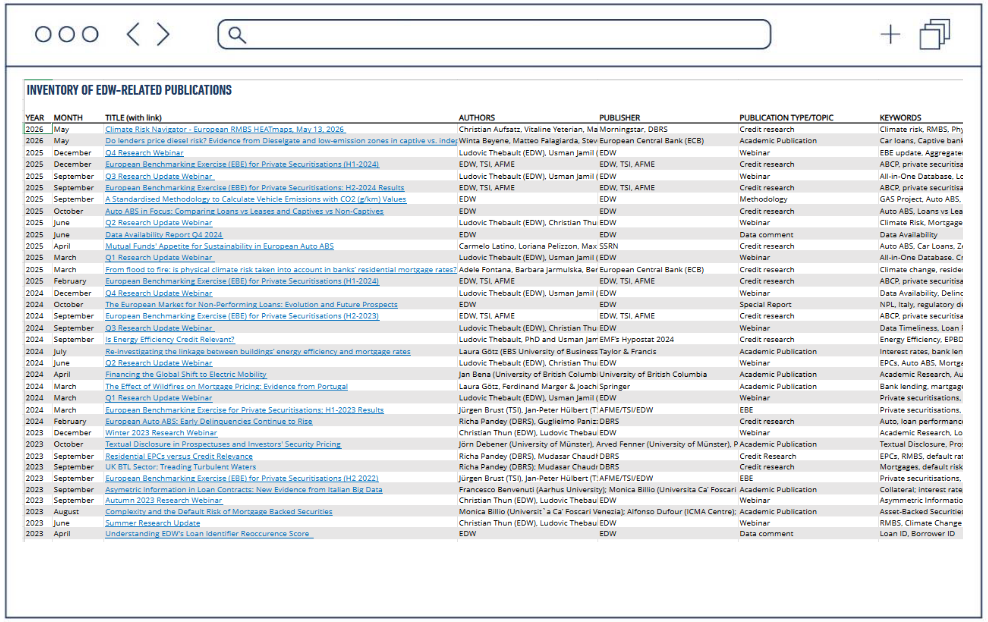
Latest publications

- Motorcycle Finance: Separating Physical and Credit Risk
- Global ABS 2026: From Cautious Recovery to a Market Focused on Execution
- EDW Responds to FCA Consultation, CP26/6 on Reforming the UK Securitisation Framework
- EU Securitisation Reform: Laying a new foundation and What Comes Next
- From Others to E-Bikes: Using ESMA Free-Text Frields to Study Germany's E-Bike Leasing Market

LIST OF RESEARCH PUBLICATIONS

OUR OWN PUBLICATIONS PLUS THIRD-PARTY RESEARCH: https://eurodw.eu/about-us/media-library/





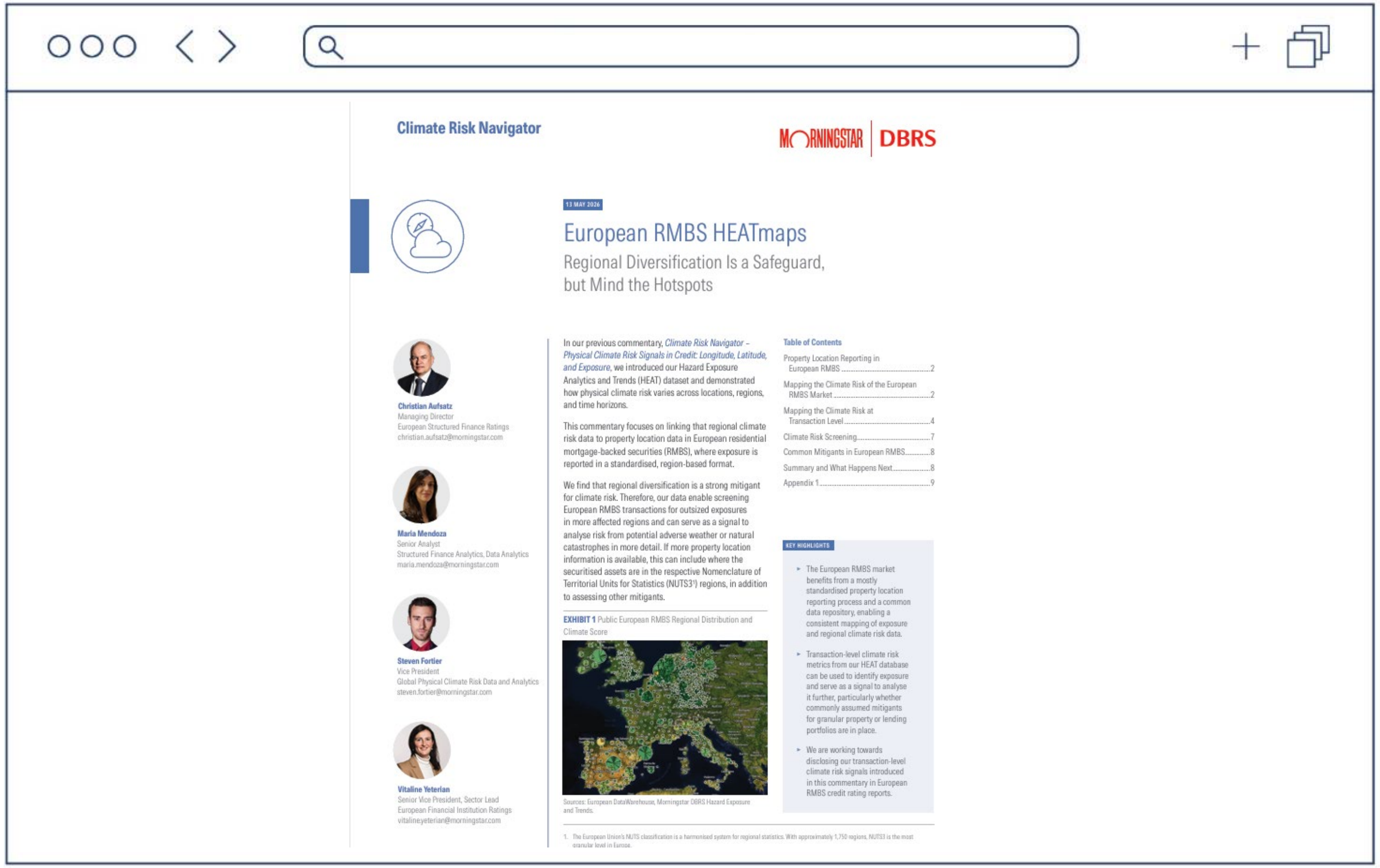
INVENTORY OF EDW-RELATED PUBLICATIONS

YEAR	MONTH	TITLE (with link)	AUTHORS	PUBLISHER	PUBLICATION TYPE/TOPIC	KEYWORDS
2026	May	Climate Risk Navigator - European RMBS HEATmaps, May 13, 2026	Christian Aufsatz, Vitaline Yeterian, Ma	Morningstar, DBRS	Credit research	Climate risk, RMBS, Phy
2026	May	Do lenders price diesel risk? Evidence from Dieselgate and low-emission zones in captive vs. indep	Winta Beyene, Matteo Falagiarda, Stev	European Central Bank (ECB)	Academic Publication	Car loans, Captive bank
2025	December	Q4 Research Webinar	Ludovic Thebault (EDW), Usman Jamil (	EDW	Webinar	EBE update, Aggregate
2025	December	European Benchmarking Exercise (EBE) for Private Securitisations (H1-2024)	EDW, TSI, AFME	EDW, TSI, AFME	Credit research	ABCP, private securitisa
2025	September	Q3 Research Update Webinar	Ludovic Thebault (EDW), Usman Jamil (	EDW	Webinar	All-in-One Database, Lo
2025	September	European Benchmarking Exercise (EBE) for Private Securitisations: H2-2024 Results	EDW, TSI, AFME	EDW, TSI, AFME	Credit research	ABCP, private securitisa
2025	September	A Standardised Methodology to Calculate Vehicle Emissions with CO2 (g/km) Values	EDW	EDW	Methodology	GAS Project, Auto ABS,
2025	October	Auto ABS in Focus: Comparing Loans vs Leases and Captives vs Non-Captives	EDW	EDW	Credit research	Auto ABS, Loans vs Lea
2025	June	Q2 Research Update Webinar	Ludovic Thebault (EDW), Christian Thu	EDW	Webinar	Climate Risk, Mortgage
2025	June	Data Availability Report Q4 2024	EDW	EDW	Data comment	Data Availability
2025	April	Mutual Funds' Appetite for Sustainability in European Auto ABS	Carmelo Latino, Loriana Pelizzon, Max	SSRN	Credit research	Auto ABS, Car Loans, Ze
2025	March	Q1 Research Update Webinar	Ludovic Thebault (EDW), Usman Jamil (	EDW	Webinar	All-in-One Database. Cr
2025	March	From flood to fire: is physical climate risk taken into account in banks' residential mortgage rates?	Adele Fontana, Barbara Jarmulska, Ber	European Central Bank (ECB)	Credit research	Climate change, reside
2025	February	European Benchmarking Exercise (EBE) for Private Securitisations (H1-2024)	EDW, TSI, AFME	EDW, TSI, AFME	Credit research	ABCP, private securitisa
2024	December	Q4 Research Update Webinar	Ludovic Thebault (EDW), Usman Jamil (	EDW	Webinar	Data Availability, Delinc
2024	October	The European Market for Non-Performing Loans: Evolution and Future Prospects	EDW	EDW	Special Report	NPL, Italy, regulatory de
2024	September	European Benchmarking Exercise (EBE) for Private Securitisations (H2-2023)	EDW, TSI, AFME	EDW, TSI, AFME	Credit research	ABCP, private securitisa
2024	September	Q3 Research Update Webinar	Ludovic Thebault (EDW), Christian Thu	EDW	Webinar	Data Timeliness, Loan F
2024	September	Is Energy Efficiency Credit Relevant?	Ludovic Thebault, PhD and Usman Jam	EMF's Hypostat 2024	Credit research	Energy Efficiency, EPBD
2024	July	Re-investigating the linkage between buildings' energy efficiency and mortgage rates	Laura Götz (EBS University of Business	Taylor & Francis	Academic Publication	Interest rates, bank len
2024	June	Q2 Research Update Webinar	Ludovic Thebault (EDW), Christian Thu	EDW	Webinar	EPCs, Auto ABS, Mortga
2024	April	Financing the Global Shift to Electric Mobility	Jan Bena (University of British Columbi	University of British Columbia	Academic Publication	Academic Research, Au
2024	March	The Effect of Wildfires on Mortgage Pricing: Evidence from Portugal	Laura Götz, Ferdinand Marger & Joachi	Springer	Academic Publication	Bank lending, martgage
2024	March	Q1 Research Update Webinar	Ludovic Thebault (EDW), Usman Jamil (	EDW	Webinar	Private securitisations,
2024	March	European Benchmarking Exercise for Private Securitisations: H1-2023 Results	Jürgen Brust (TSI), Jan-Peter Hülbert (T	AFME/TSI/EDW	EBE	Private securitisations,
2024	February	European Auto ABS: Early Delinquencies Continue to Rise	Richa Pandey (DBRS), Guglielmo Paniz	DBRS	Credit research	Auto, loan performance
2023	December	Winter 2023 Research Webinar	Christian Thun (EDW), Ludovic Thebau	EDW	Webinar	Academic Research, Lo
2023	October	Textual Disclosure in Prospectuses and Investors' Security Pricing	Jörn Debener (University of Münster), Arved Fenner (University of Münster), P		Academic Publication	Textual Disclosure, Pro
2023	September	Residential EPCs versus Credit Relevance	Richa Pandey (DBRS), Mudasar Chaudh	DBRS	Credit Research	EPCs, RMBS, default rat
2023	September	UK BTL Sector: Treading Turbulent Waters	Richa Pandey (DBRS); Mudasar Chaudr	DBRS	Credit research	Mortgages, default risk
2023	September	European Benchmarking Exercise (EBE) for Private Securitisations (H2 2022)	Jürgen Brust (TSI), Jan-Peter Hülbert (T	AFME/TSI/EDW	EBE	Private securitisations,
2023	September	Asymetric Information in Loan Contracts: New Evidence from Italian Big Data	Francesco Benvenuti (Aarhus University); Monica Billio (Universita Ca' Foscari		Academic Publication	Collateral; interest rate
2023	September	Autumn 2023 Research Webinar	Christian Thun (EDW), Ludovic Thebau	EDW	Webinar	Asymmetric Informatio
2023	August	Complexity and the Default Risk of Mortgage Backed Securities	Monica Billio (Universit`a Ca' Foscari Venezia); Alfonso Dufour (ICMA Centre);		Academic Publication	Asset-Backed Securitie
2023	June	Summer Research Update	Christian Thun (EDW), Ludovic Thebau	EDW	Webinar	RMBS, Climate Change
2023	April	Understanding EDW's Loan Identifier Reoccurence Score	EDW	EDW	Data comment	Loan ID, Borrower ID

RECENT PUBLICATIONS

EUROPEAN RMBS HEATMAP (DBRS MORNINGSTAR)

EUROPEAN RMBS HEATMAPS : REGIONAL DIVERSIFICATION IS A SAFEGUARD BUT MID THE HOTSPOTS



Climate Risk Navigator

MORNINGSTAR | DBRS

13 MAY 2026

European RMBS HEATmaps

Regional Diversification Is a Safeguard, but Mind the Hotspots

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In our previous commentary, *Climate Risk Navigator – Physical Climate Risk Signals in Credit: Longitude, Latitude, and Exposure*, we introduced our Hazard Exposure Analytics and Trends (HEAT) dataset and demonstrated how physical climate risk varies across locations, regions, and time horizons.

This commentary focuses on linking that regional climate risk data to property location data in European residential mortgage-backed securities (RMBS), where exposure is reported in a standardised, region-based format.

We find that regional diversification is a strong mitigant for climate risk. Therefore, our data enable screening European RMBS transactions for outsized exposures in more affected regions and can serve as a signal to analyse risk from potential adverse weather or natural catastrophes in more detail. If more property location information is available, this can include where the securitised assets are in the respective Nomenclature of Territorial Units for Statistics (NUTS3[1]) regions, in addition to assessing other mitigants.

EXHIBIT 1 Public European RMBS Regional Distribution and Climate Score

Sources: European DataWarehouse, Morningstar DBRS Hazard Exposure and Trends.

Table of Contents

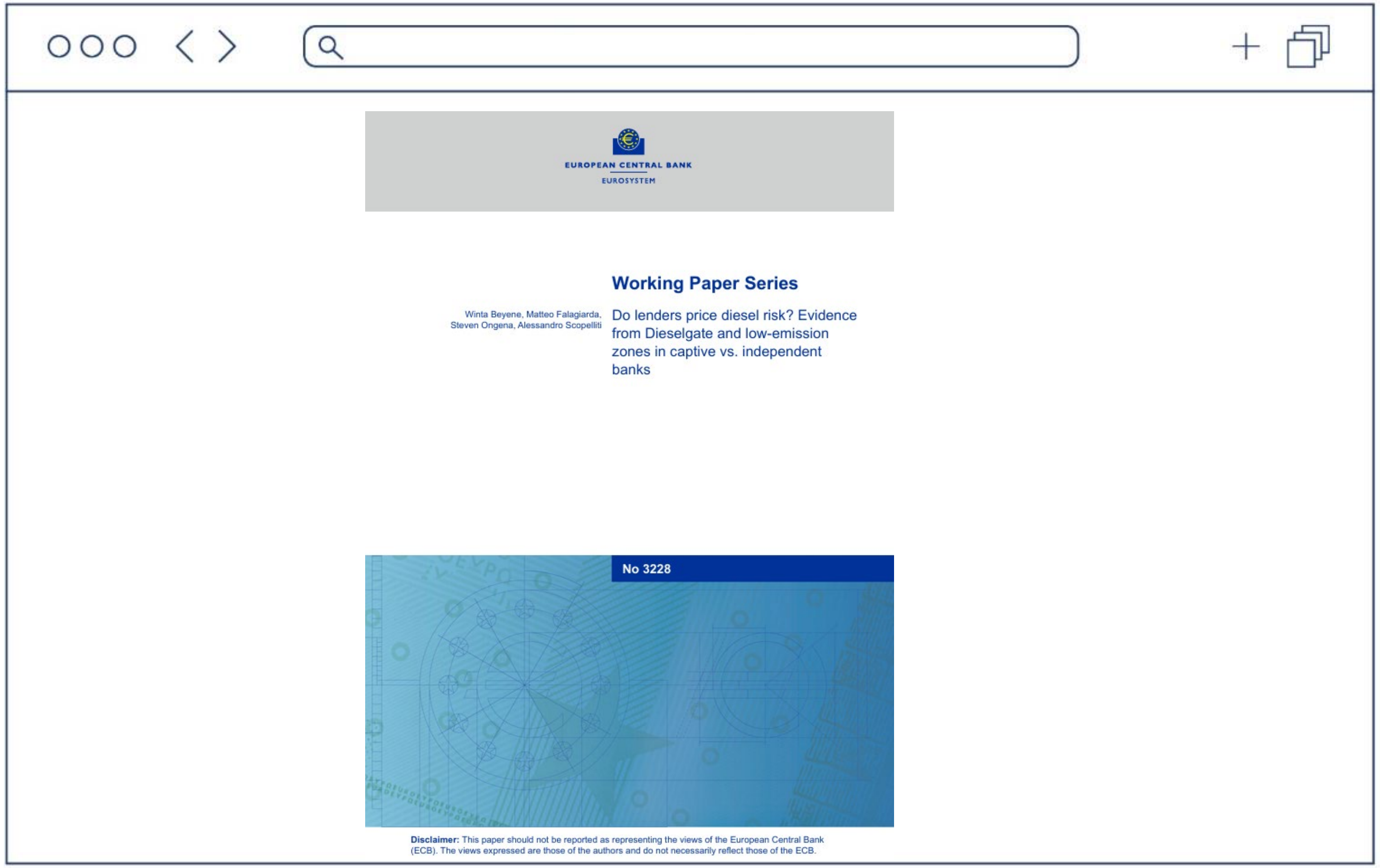
KEY HIGHLIGHTS

- The European RMBS market benefits from a mostly standardised property location reporting process and a common data repository, enabling a consistent mapping of exposure and regional climate risk data.
- Transaction-level climate risk metrics from our HEAT database can be used to identify exposure and serve as a signal to analyse it further, particularly whether commonly assumed mitigants for granular property or lending portfolios are in place.
- We are working towards disclosing our transaction-level climate risk signals introduced in this commentary in European RMBS credit rating reports.

1. The European Union's NUTS classification is a harmonised system for regional statistics. With approximately 1,750 regions, NUTS3 is the most granular level in Europe.

ECB WORKING PAPER

DO LENDERS PRICE DIESEL RISK?


EUROPEAN CENTRAL BANK
EUROSYSTEM

Working Paper Series

Winta Beyene, Matteo Falagiarda, Steven Ongena, Alessandro Scopelliti

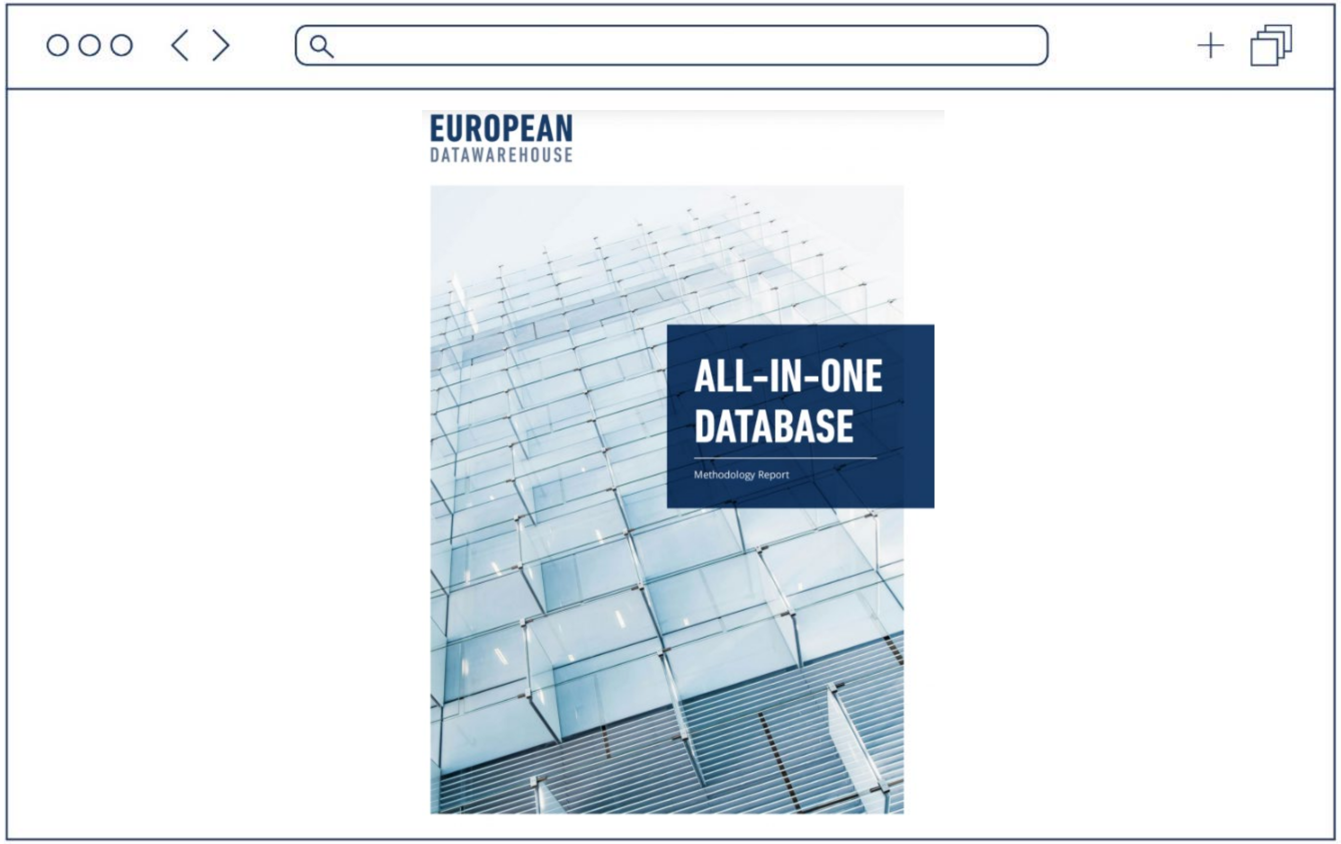
Do lenders price diesel risk? Evidence from Dieselgate and low-emission zones in captive vs. independent banks

No 3228

Disclaimer: This paper should not be reported as representing the views of the European Central Bank (ECB). The views expressed are those of the authors and do not necessarily reflect those of the ECB.

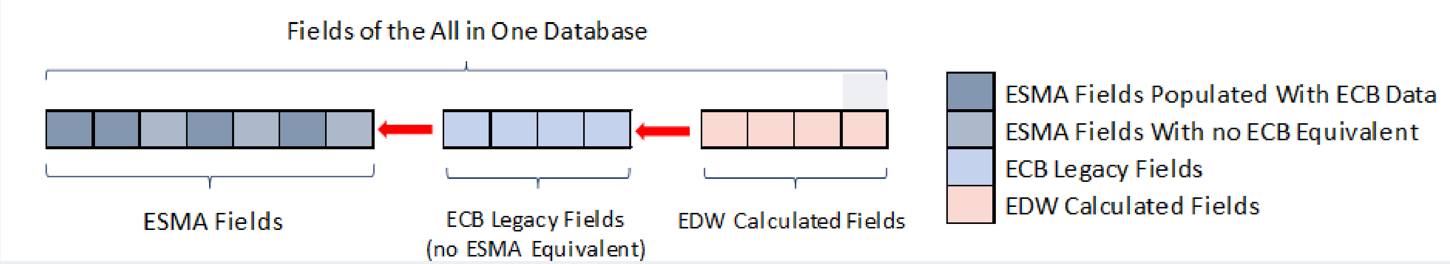
ALL IN ONE DATABASE METHODOLOGY

CONSOLIDATING ECB, ESMA AND FCA DATA INTO ONE DATABASE

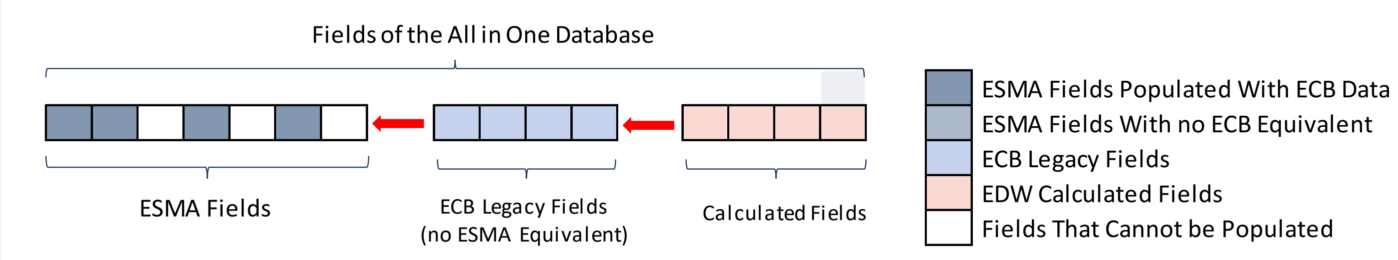


STRUCTURE

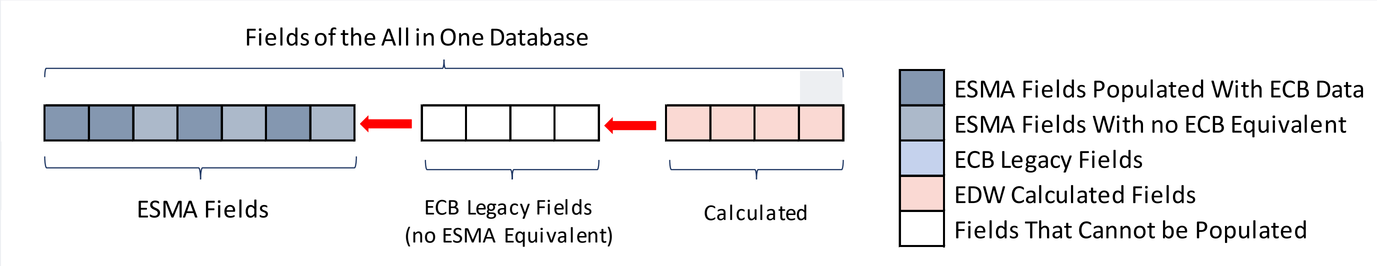
COMPOSITION OF THE ALL IN ONE DATABASE



WHEN ECB DATA IS IMPORTED IN THE ALL IN ONE DATABASE



WHEN ESMA DATA IS IMPORTED IN THE ALL IN ONE DATABASE

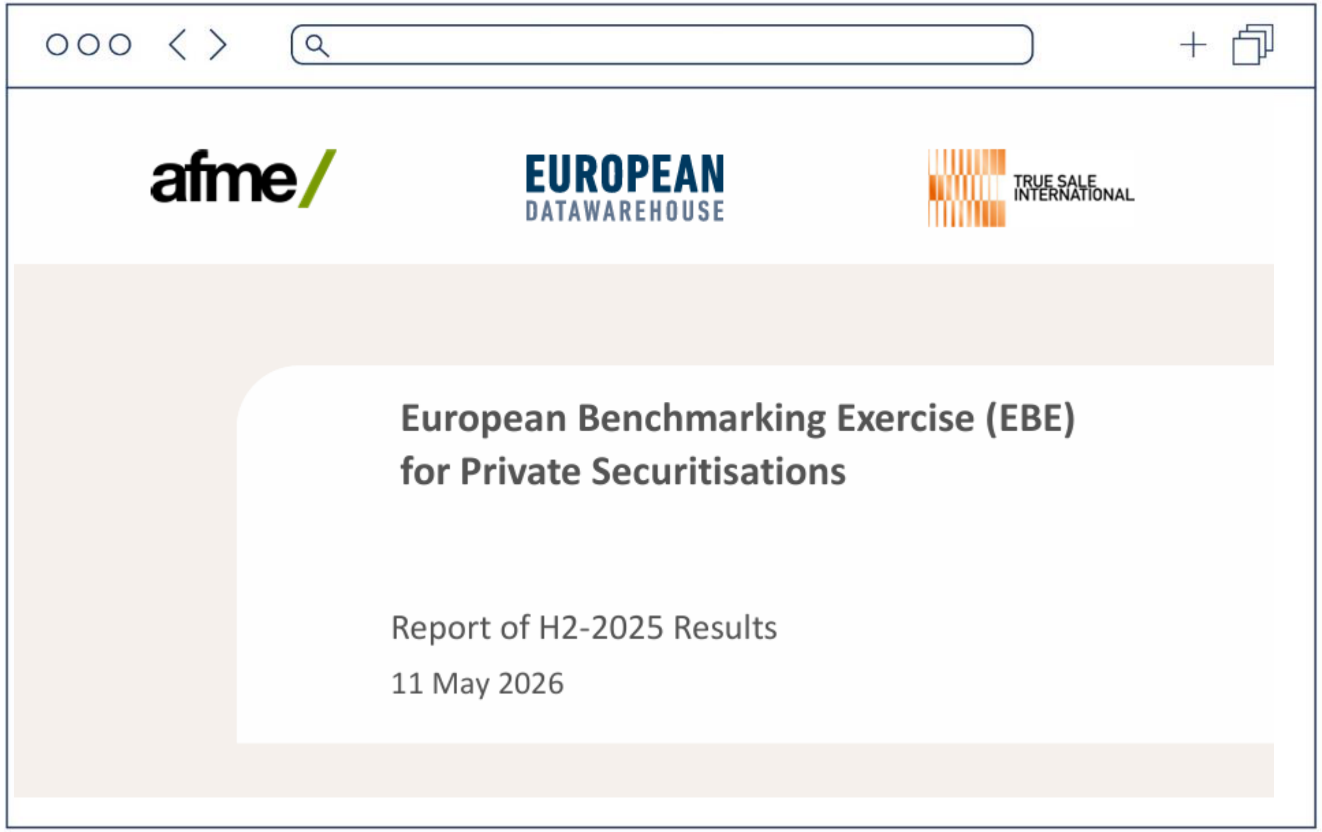


LIST OF CALCULATED FIELDS AS OF SEP. 2025 IN ECB ADJUSTED DATABASE

	AUTO	CONSUMER	CREDIT CARDS	LEASINGS	RMBS	SME
DATA_ORIGIN	yes	yes	yes	yes	yes	yes
EDCODE	yes	yes	yes	yes	yes	yes
Select_Unique	yes	yes	yes	yes	yes	yes
Sec_Id	yes	yes	yes	yes	yes	yes
PCD	yes	yes	yes	yes	yes	yes
GEO_1	yes	yes	yes	yes	yes	yes
GEO_2	yes	yes	yes	yes	yes	yes
GEO_3	yes	yes	yes	yes	yes	yes
Industry_1	-	-	-	yes	-	yes
Industry_2	-	-	-	yes	-	yes
QTR	yes	yes	yes	yes	yes	yes
Country	yes	yes	yes	yes	yes	yes
Manufacturer	yes	-	-	-	-	-
Model	yes	-	-	-	-	-
Fuel_Type	yes	-	-	-	-	-
Year_Model	yes	-	-	-	-	-
Engine_size	yes	-	-	-	-	-
Vehicle_type	yes	-	-	-	-	-
Euro_Conversion_Facto	yes	yes	yes	yes	yes	yes
ED_Loan_ID	WIP	WIP	WIP	WIP	WIP	WIP
ED_Borrower_ID	WIP	WIP	WIP	WIP	WIP	WIP
Days in arrears proxy	To do	To do		To do	To do	

EUROPEAN BENCHMARKING EXERCISE

EBE UPDATED REPORT


afme/
EUROPEAN DATAWAREHOUSE
TRUE SALE INTERNATIONAL

European Benchmarking Exercise (EBE)
for Private Securitisations

Report of H2-2025 Results

11 May 2026

RECENT PUBLICATIONS: H2-2025 EBE REPORT

REPORT ON PRIVATE SECURITISATIONS CO-AUTHORED BY AFME AND TSI

- The **report** provides aggregated transaction-level data from 12 banks across 6 European countries on a voluntary basis.
- Its purpose is to enhance the quality and usefulness of disclosure in the private cash securitisation market, both ABCP and balance-sheet financed in the EU and the UK.

- **The loan level data on private deals stored at EDW was therefore not used for this report**
- Scope of the study:
  - NOT private CLOs (collateralised Loan Obligations)
  - NOT private NPL (non-performing loans)
  - NOT synthetic SRT deals (significant risk transfer)
- Private ABS only (most of which are used for ABCP collateral)


afme/

EUROPEAN DATAWAREHOUSE

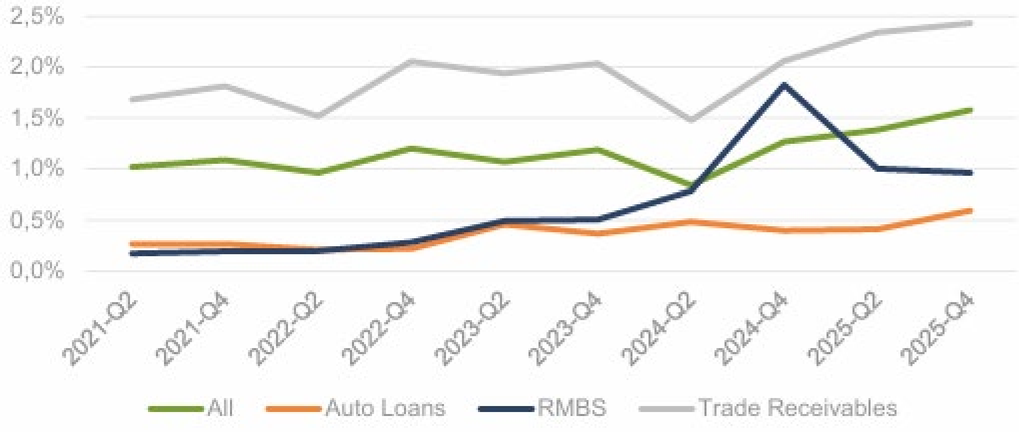
TRUE SALE INTERNATIONAL

European Benchmarking Exercise (EBE) for Private Securitisations

Report of H2-2025 Results

11 May 2026

Figure 1 – Dynamic Delinquency Ratio 90 days



RECENT PUBLICATIONS: H2-2025 EBE REPORT

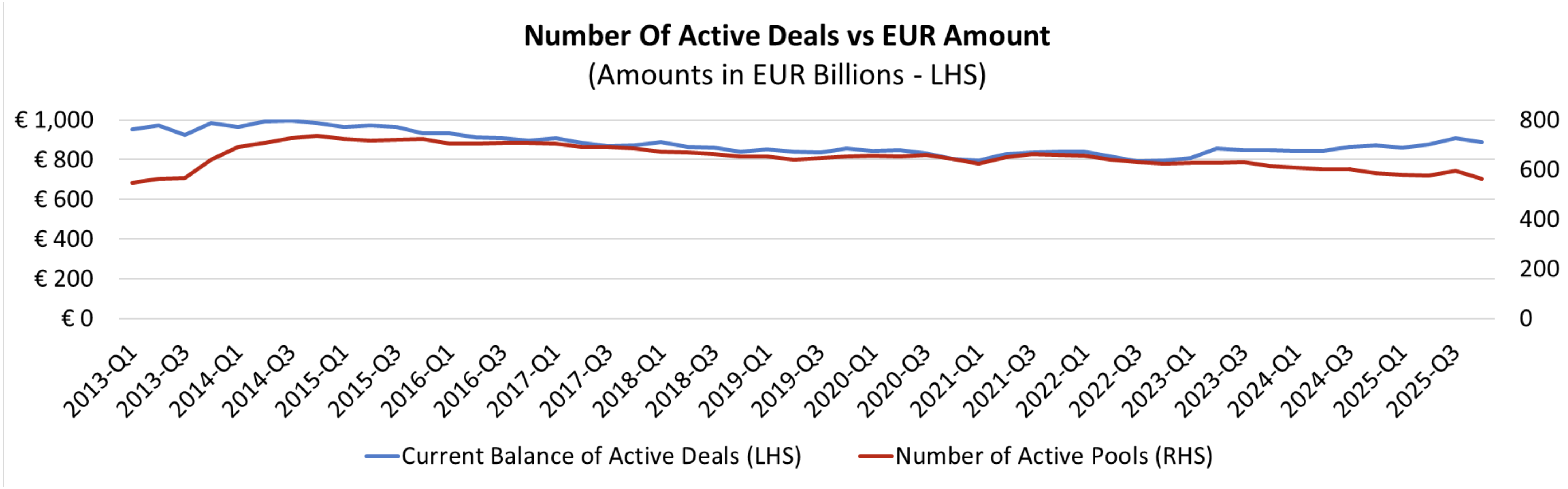
REPORT ON PRIVATE SECURITISATIONS COAUTHORED BY AFME AND TSI

Table 1 – Overview

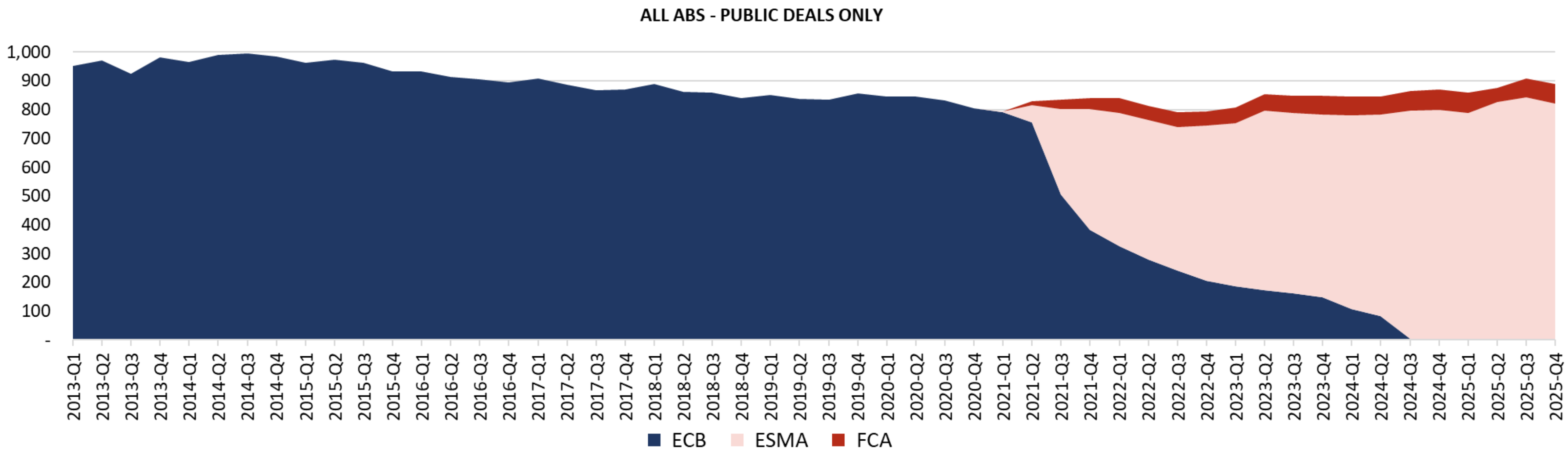
		2025-12	2025-06	2024-12	2024-06	2023-12	2023-06	2022-12	2022-06	2021-12	2021-06	Δ_p
Number of Participants	#	12	12	12	12	12	12	12	12	12	12	0.0%
Number of Commitments	#	636	631	637	595	610	610	556	525	527	504	0.8%
Number of Transactions	#	469	465	453	435	457	443	433	412	387	404	0.9%
Committed Amount	Million EUR	84,183	82,630	86,841	79,288	79,424	78,590	73,182	67,241	65,064	62,814	1.9%
Funded Amount	Million EUR	65,794	64,181	64,112	60,197	59,111	57,748	60,502	56,400	53,009	50,205	2.5%
Utilisation	%	78.2%	77.7%	73.8%	75.9%	74.4%	73.5%	82.7%	83.9%	81.5%	80.0%	0.6%
Total Asset Amount	Million EUR	221,016	220,457	220,265	207,646	203,859	195,524	184,159	183,326	173,016	177,329	0.3%
Based on delivered data:												
Estimated Market Size	Million EUR	250,484	249,852	249,634	232,236	231,040	209,400	195,669	194,784	183,830	188,412	0.3%

DATA AVAILABILITY REPORT

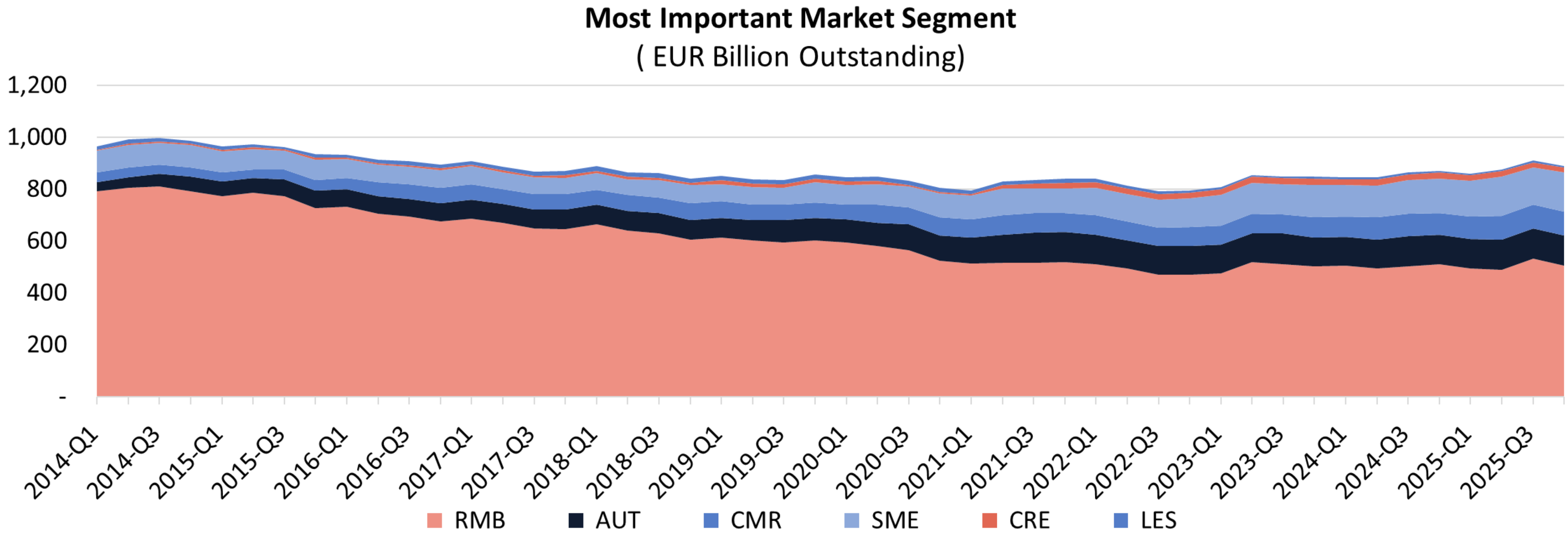
OUTSTANDING AMOUNT OF PUBLIC DEAL ASSETS VS NUMBER OF DEALS



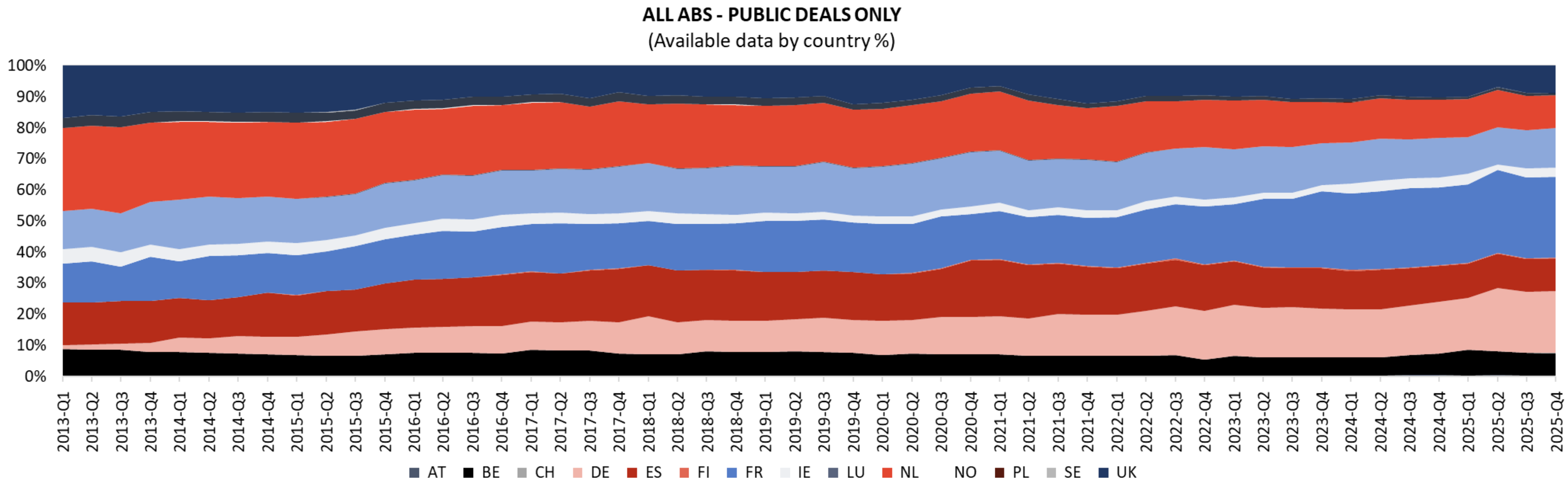
ECB VS ESMA VS FCA DATA AVAILABILITY



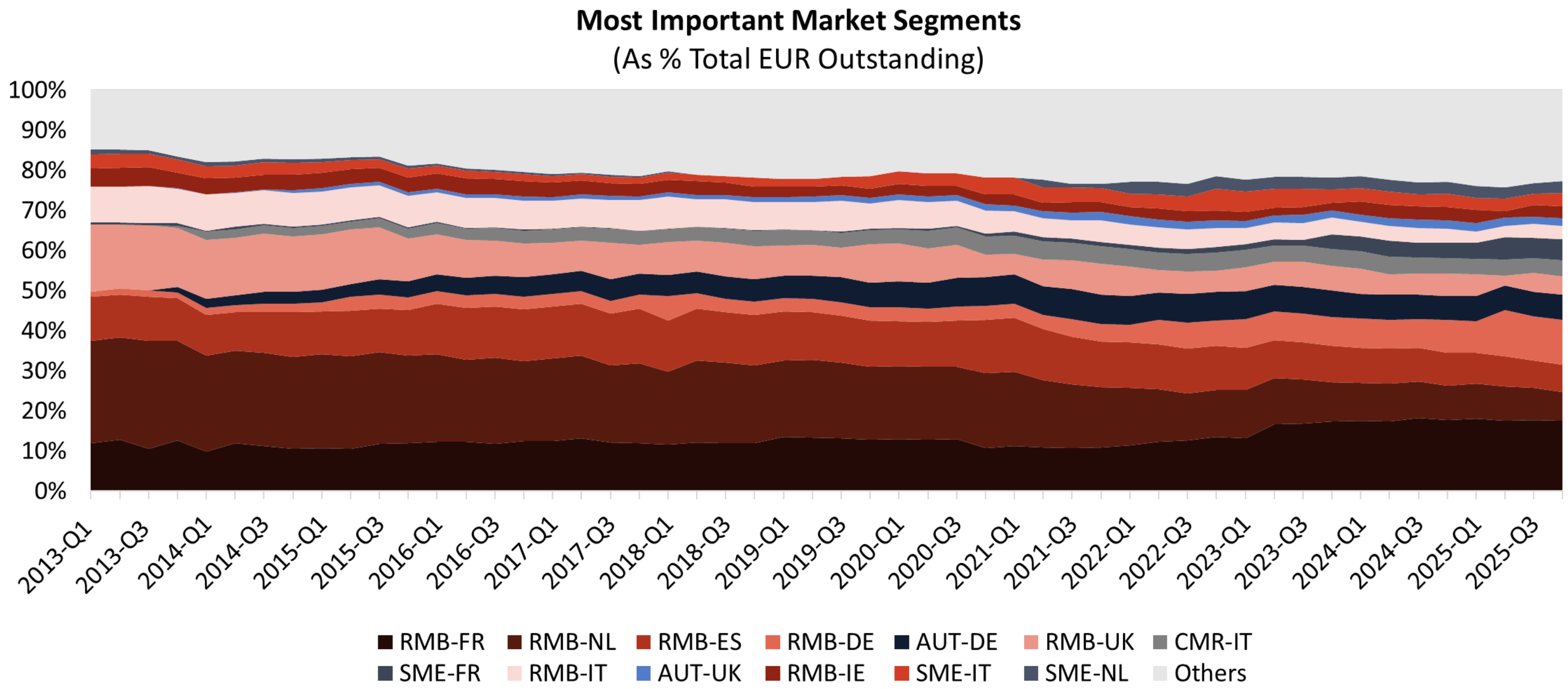
OUTSTANDING EUR AMOUNTS BY ASSET CLASS



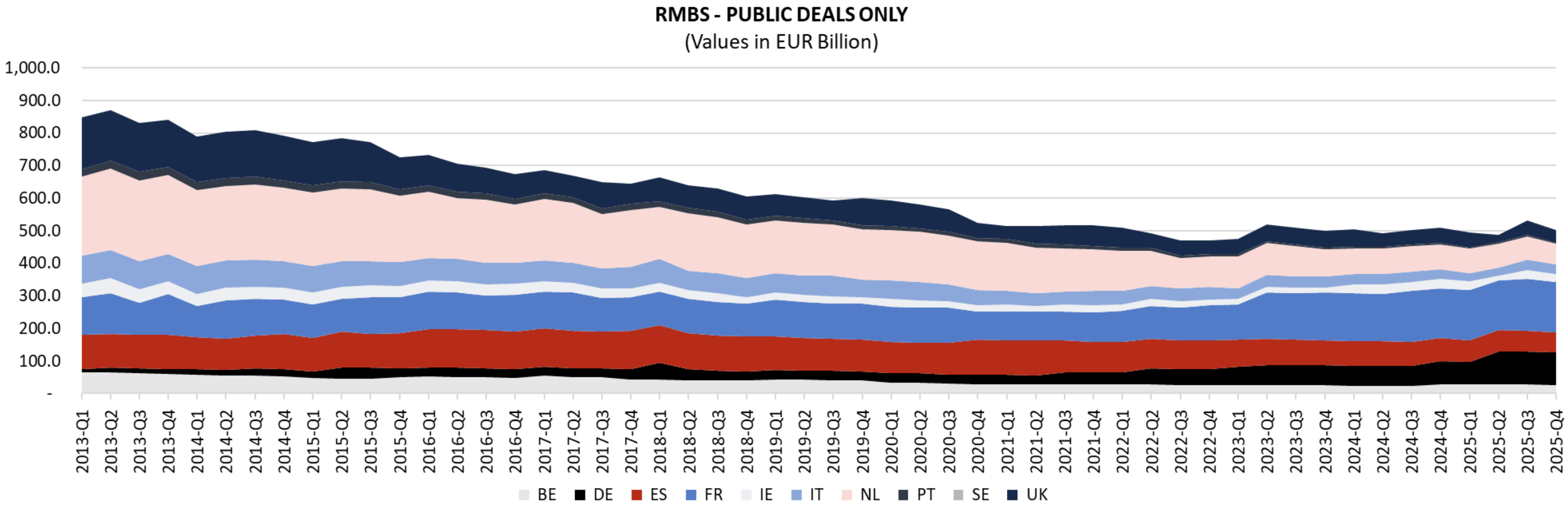
RELATIVE IMPORTANCE BY COUNTRY



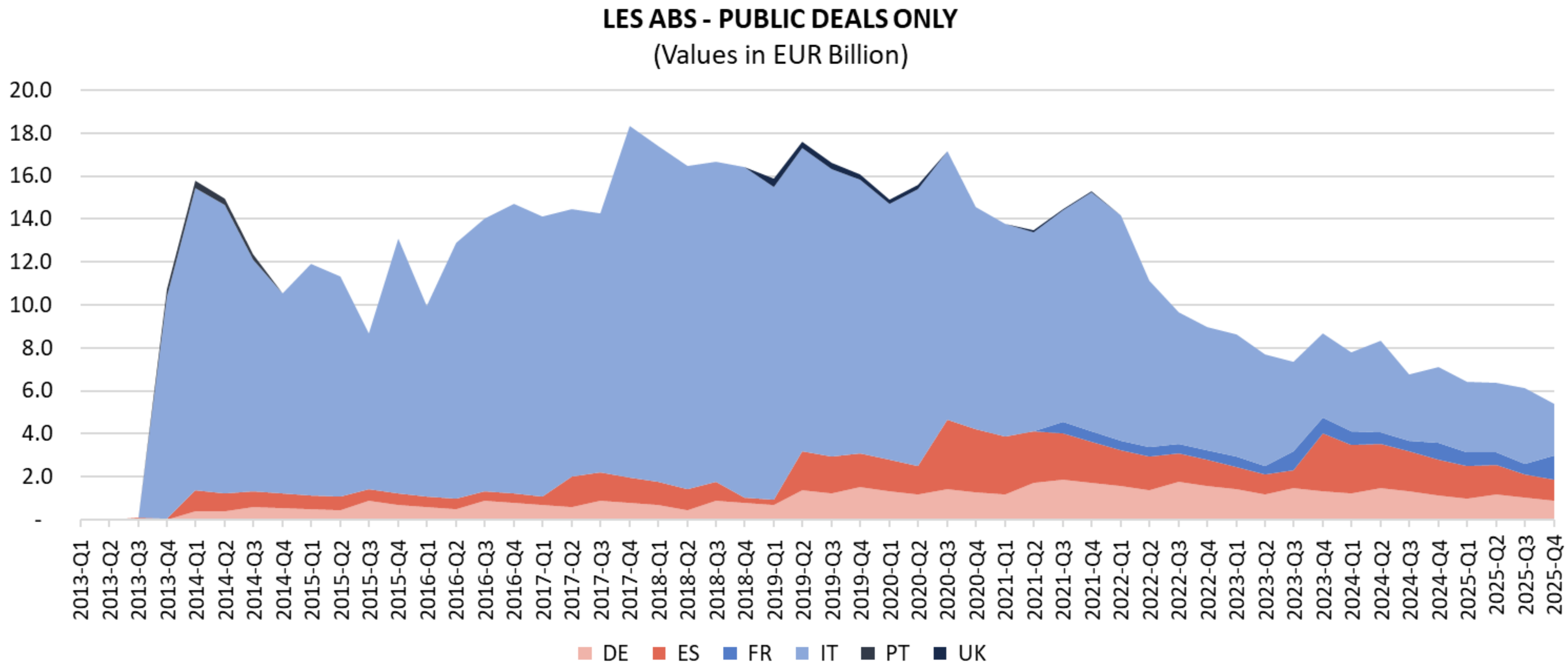
RELATIVE IMPORTANCE BY ABS SEGMENTS



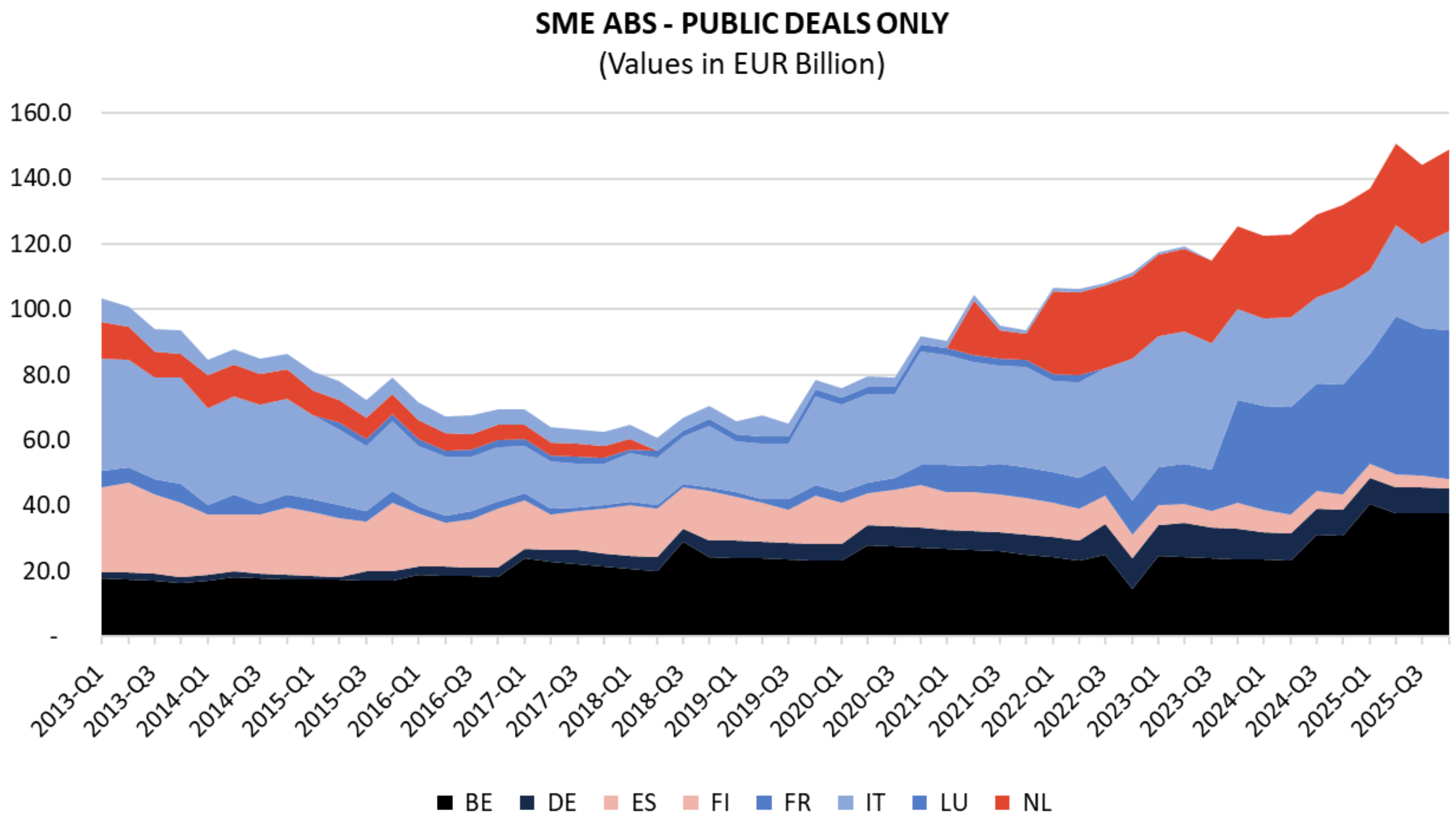
RMBS EUR OUTSTANDING



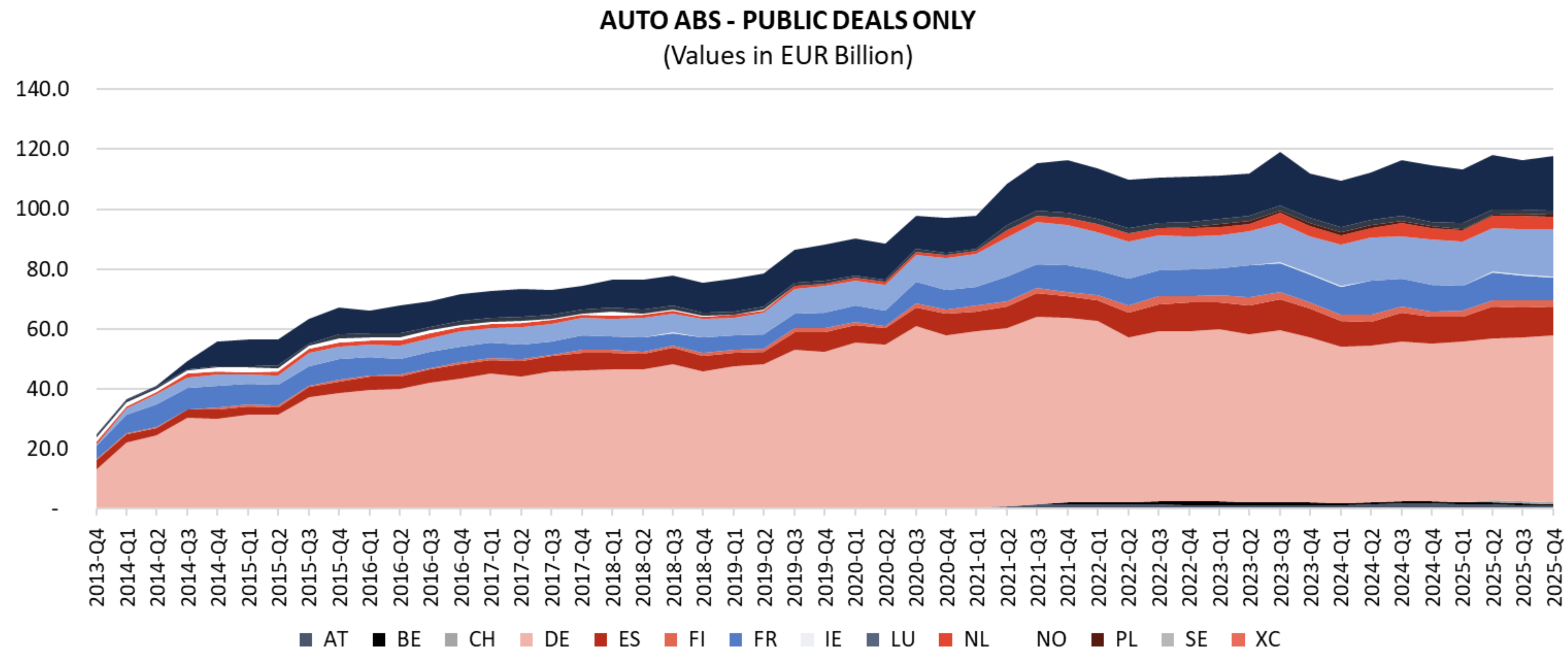
LEASES EUR OUTSTANDING



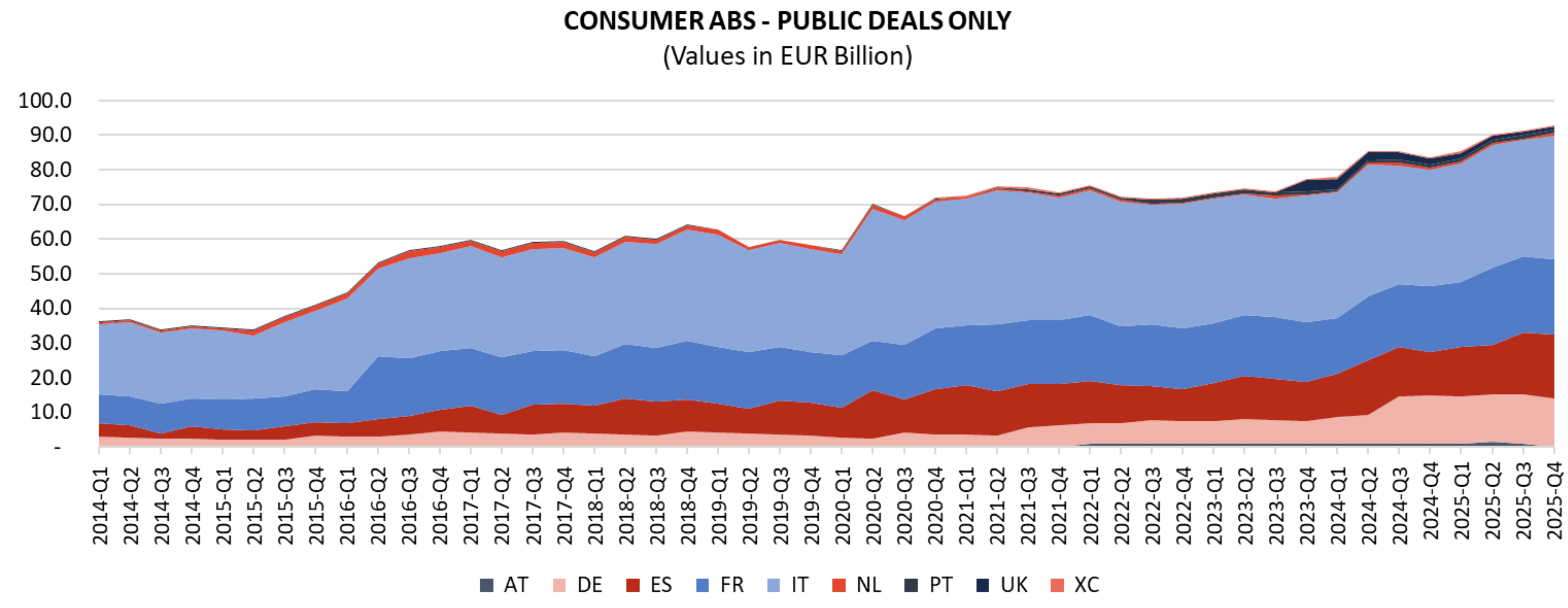
SME EUR OUTSTANDING



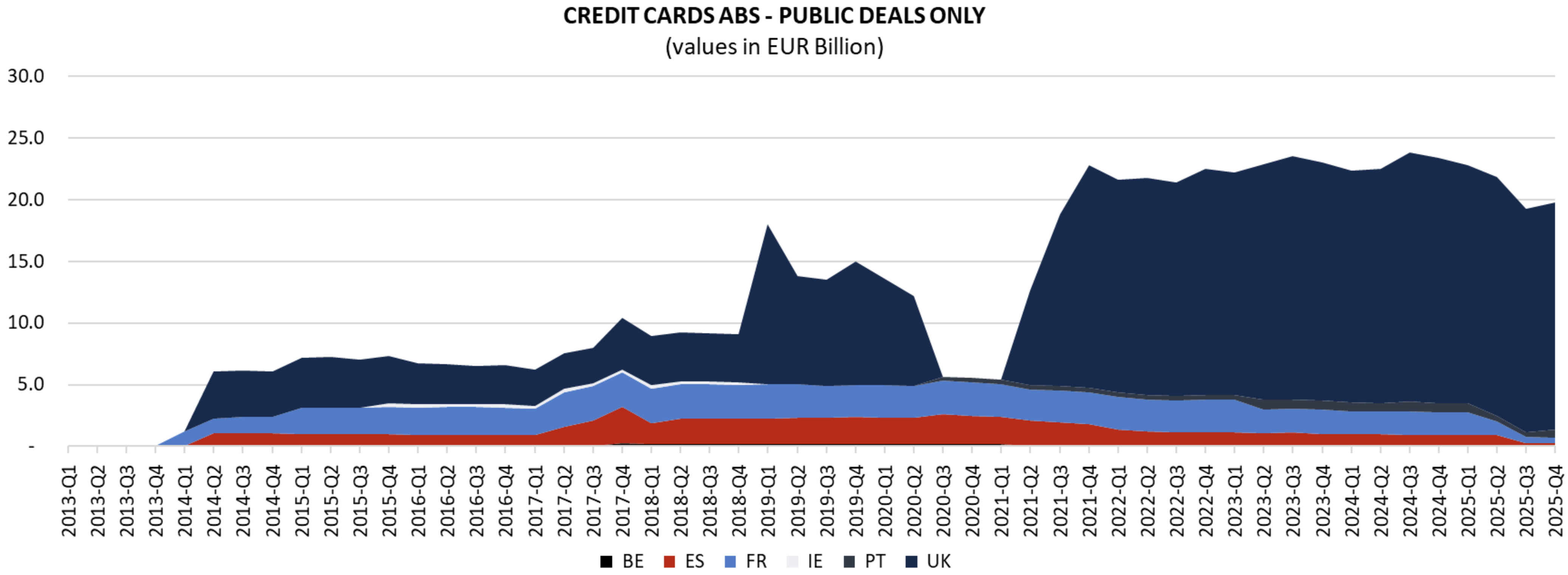
AUTO EUR OUTSTANDING



CONSUMER EUR OUTSTANDING



CREDIT CARDS EUR OUTSTANDING



DEAL BY DEAL OUTSTANDING

EDCODE	SEC_ID	DEAL NAME	2023-Q	2023-Q	2023-Q	2023-Q	2024-Q	2024-	2024-Q3	2024-Q4	2025-Q1	2025-Q	2025-Q	2025-Q
AUTMDE000245104120153	529900GJD3OQLRZCKW37N201502	DRIVER MASTER C2	809,586	786,610	644,787	637,864	497,126	537,518	529,544	526,208	521,680	516,113	507,537	500,823
AUTMDE000283100320147	96950001WI712W7PQG45N201401	Cars Alliance Auto Loans Germany Master	47,696	58,342	68,394	74,903	10,270	24,007	34,404	43,378	53,120	18,785	29,110	36,887
AUTSDE000082500220239	549300XVWRQGZCNHXF23N202301	AUTONORIA DE 2023	43,516	43,936	43,301	39,726	36,113	32,772	29,624	26,840	24,131	21,768	19,379	17,296
AUTSDE000082500620255	984500RC7C89A0755E80N202501	AUTONORIA DE 2025	-	-	-	-	-	-	-	-	-	-	27,428	26,148
AUTSDE000115500220229	D2OIGPB6E66YOBJ9GT20N202201	Bavarian Sky S.A., acting in respect of its Compartmer	45,453	42,943	38,716	34,653	31,065	26,991	22,853	19,079	15,961	13,189	10,352	7,432
AUTSDE000115500420233	D2OIGPB6E66YOBJ9GT20N202301	Bavarian Sky S.A., Compartment German Auto Loans	45,841	43,208	40,202	37,280	34,500	31,248	28,056	25,005	22,154	18,835	15,323	11,923
AUTSDE000115500520230	D2OIGPB6E66YOBJ9GT20N202302	Bavarian Sky S.A., acting in respect of its Compartmer	-	-	53,543	72,192	77,009	77,392	81,641	80,833	74,632	68,230	60,843	50,760
AUTSDE000115500620246	D2OIGPB6E66YOBJ9GT20N202401	Bavarian Sky S.A., acting in respect of its Compartmer	-	-	-	27,640	32,010	32,639	32,972	33,292	32,617	29,964	27,306	24,671
AUTSDE000115500720251	D2OIGPB6E66YOBJ9GT20N202501	Bavarian Sky S.A., acting in respect of its Compartmer	-	-	-	-	-	-	-	-	35,757	36,671	37,358	38,143
AUTSDE000115500820259	D2OIGPB6E66YOBJ9GT20N202502	Bavarian Sky S.A., acting in respect of its Compartmer	-	-	-	-	-	-	-	-	45,357	68,237	77,751	84,977
AUTSDE000115501020263	D2OIGPB6E66YOBJ9GT20N202601	Bavarian Sky S.A., acting in respect of its Compartmer	-	-	-	-	-	-	-	-	-	-	-	47,119
AUTSDE000245102220101	5299004GLEUX88BSNB74N201001	VCL-Master Compartment 1	150,258	155,957	174,427	257,318	249,340	242,989	264,272	316,099	230,612	273,725	264,396	357,681
AUTSDE000245105020151	5299004GLEUX88BSNB74N201501	VCLM RV C2	672,427	677,656	741,631	757,406	727,041	727,726	757,352	746,503	738,018	671,052	717,138	701,877
AUTSDE000245108920233	5299004GLEUX88BSNB74N202302	VCL 39	71,690	72,700	72,306	71,665	70,276	68,664	66,362	62,401	58,316	54,322	47,209	34,170
AUTSDE000245109020231	5299004GLEUX88BSNB74N202303	VCL 40	-	-	69,275	70,513	69,629	68,502	67,354	65,601	62,803	58,407	55,075	48,966
AUTSDE000245109420241	5299004GLEUX88BSNB74N202401	VCL 41	-	-	-	69,771	96,023	95,124	93,720	92,141	89,834	86,294	79,845	73,659
AUTSDE000245109520248	5299004GLEUX88BSNB74N202403	VCL 43	-	-	-	-	-	-	75,974	78,687	77,737	76,237	74,314	70,263
AUTSDE000245109620253	5299004GLEUX88BSNB74N202502	VCL 45	-	-	-	-	-	-	-	-	85,561	109,537	107,681	104,103
AUTSDE000245500920245	5299004GLEUX88BSNB74N202402	VCL 42	-	-	-	-	72,031	99,667	98,865	97,679	95,806	93,631	89,604	80,856
AUTSDE000245501420252	5299004GLEUX88BSNB74N202501	VCL 44	-	-	-	-	-	-	-	78,147	136,577	134,982	131,922	126,862
AUTSDE000245501920251	5299004GLEUX88BSNB74N202503	VCL 46	-	-	-	-	-	-	-	-	-	80,701	-	130,009
AUTSDE000245502120265	5299004GLEUX88BSNB74N202601	VCL 47	-	-	-	-	-	-	-	-	-	-	-	79,658
AUTSDE000267100420202	5493008NC2QJNQ7O6Q18N202001	Koromo S.A. - Comp. 3	81,636	80,825	79,107	78,393	76,295	74,915	73,101	72,114	70,632	69,081	67,201	66,110
AUTSDE000281101420236	529900DEAYRUPP22B339N202301	Silver Arrow S. A. Compartment 15	33,807	31,769	29,658	27,353	25,166	23,063	20,733	18,166	15,977	13,700	11,496	9,417
AUTSDE000281500220237	529900DEAYRUPP22B339N202302	Silver Arrow S.A. Compartment 16	-	-	-	30,889	28,529	26,356	24,018	21,431	19,215	16,993	14,941	12,942
AUTSDE000281500320243	529900DEAYRUPP22B339N202401	Silver Arrow S.A. Compartment 17	-	-	-	-	30,141	28,288	26,268	24,064	21,963	19,896	17,839	15,835
AUTSDE000281500420241	529900DEAYRUPP22B339N202402	Silver Arrow S.A. Compartment 18	-	-	-	-	-	-	29,483	27,417	25,281	23,219	21,109	19,098
AUTSDE000281500520255	529900DEAYRUPP22B339N202501	Silver Arrow S.A. Compartment 19	-	-	-	-	-	-	-	-	28,784	27,061	24,921	22,974
AUTSDE000281500620253	529900DEAYRUPP22B339N202502	Silver Arrow S.A. Compartment 20	-	-	-	-	-	-	-	-	-	-	20,105	26,455
AUTSDE000283100920216	969500PQ8FOUW7T5DZ43N202101	Cars Alliance Auto Loans Germany V 2021-1	90,309	82,695	75,239	68,663	62,220	55,419	48,585	42,779	37,916	33,229	28,660	24,232
AUTSDE000283101020230	969500LGWYSIBSU9IP89N202301	Cars Alliance Auto Loans Germany V 2023-1	78,396	77,289	75,352	74,048	71,489	65,668	59,073	53,288	48,741	44,058	38,516	33,716
AUTSDE000283101120246	969500KJR887I60U6F15N202401	Cars Alliance Auto Loans Germany V 2024-1	-	-	-	-	66,461	66,859	66,364	64,955	-	57,498	53,579	50,134
AUTSDE000283500120250	969500IHW9N1YKS10M73N202501	Cars Alliance Auto Loans Germany V 2025-1	-	-	-	-	-	-	-	-	48,042	43,907	44,396	45,046
AUTSDE000286102620205	5299002CRNX7K6KOL397N202001	SC Germany Mobility 2020-1	419,191	418,871	416,952	389,977	361,827	332,577	303,004	275,830	248,646	221,534	195,892	174,865
AUTSDE000290500220246	529900NI06KDCOI3KP85N202401	ECARAT DE SA 2024-1	-	-	-	-	-	27,746	28,439	29,220	29,764	30,527	28,903	27,896
AUTSDE000290500320251	529900NI06KDCOI3KP85N202501	ECARAT DE SA Lease 2025-1	-	-	-	-	-	-	-	-	-	53,919	55,132	55,994
AUTSDE000290500420259	529900NI06KDCOI3KP85N202502	ECARAT DE SA 2025-2	-	-	-	-	-	-	-	-	-	-	37,311	37,121
AUTSDE000413100420210	52990056C1E0V96O5B50N202101	RETAIL AUTOMOTIVE CP GERMANY 2021	109,262	108,206	99,126	92,531	84,855	76,342	68,491	62,839	56,814	49,899	43,443	39,259
AUTSDE000491100820217	529900LZT3QKPD355Q25N202101	Red & Black Auto Germany 8 UG	58,328	54,372	50,363	46,166	42,203	38,001	33,606	29,168	25,335	21,019	17,048	14,883
AUTSDE000491500120226	529900LZT3QKPD355Q25N202201	Red & Black Auto Germany 9 UG	38,950	37,286	35,353	33,469	31,569	29,646	27,483	25,339	23,275	21,200	18,695	16,239
AUTSDE000491500220232	529900LZT3QKPD355Q25N202301	Red & Black Auto Germany 10 UG	-	-	51,913	50,281	48,241	46,171	43,854	41,409	38,861	36,336	33,667	30,738
AUTSDE000491500320248	529900LZT3QKPD355Q25N202401	Red & Black Auto Germany 11 UG	-	-	-	-	-	-	39,334	37,709	35,749	33,873	31,481	29,364

ESMA / ECB REPORTING OVERLAPS

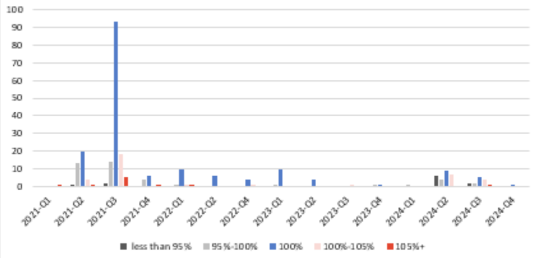
CONSUMER EUR OUTSTANDING

EDCODE		countr	pcd	ata_orig	Currenc	Current_Amoun	Match	Quarter	Country	Asset class	Match category
AUTMDE00024[illegible]	NULL	DE	2021-08-31	ecb	EUR	14,735,580,579	100.0%	2021-Q3	DE	AUT	100%
AUTMDE00024510412015	529900GJD3OQLRZCKW37N20150	DE	2021-08-31	esma	EUR	14,735,580,579					
AUTMDE00028310032014	NULL	DE	2021-08-31	ecb	EUR	2,144,792,677	93.5%	2021-Q3	DE	AUT	less than 95%
AUTMDE00028310032014	96950001WI712W7PQG45N201401	DE	2021-08-31	esma	EUR	2,294,890,887					
AUTMFR00010110032012	NULL	FR	2021-08-31	ecb	EUR	1,274,880,831	100.0%	2021-Q3	FR	AUT	100%
AUTMFR00010110032012	96950001WI712W7PQG45N201201	FR	2021-08-31	esma	EUR	1,274,880,831					
AUTMFR00010110102020	NULL	FR	2021-07-31	ecb	EUR	666,668,628	100.0%	2021-Q3	FR	AUT	100%
AUTMFR00010110102020	9695001JVUL7KOY1WU66N202001	FR	2021-07-31	esma	EUR	666,668,628					
AUTMFR00026210072012	NULL	FR	2021-07-31	ecb	EUR	1,960,539,765	100.0%	2021-Q3	FR	AUT	100%
AUTMFR00026210072012	969500C6V7XE6KJJW795N201201	FR	2021-07-31	esma	EUR	1,960,539,765					
AUTMNL00024510562016	NULL	NL	2021-12-31	ecb	EUR	1,036,368,303	106.1%	2021-Q4	NL	AUT	105%+
AUTMNL00024510562016	529900WMURPIJX3VA643N201601	NL	2021-12-31	esma	EUR	977,137,292					
AUTSAT10233210022020	NULL	AT	2021-08-31	ecb	EUR	437,045,831	100.0%	2021-Q3	AT	AUT	100%
AUTSAT10233210022020	5299000I7Y60A8273788N202001	AT	2021-08-31	esma	EUR	437,045,831					
AUTSDE000115101220198	NULL	DE	2022-03-31	ecb	EUR	375,556,713	100.0%	2022-Q1	DE	AUT	100%
AUTSDE000115101220198	D2OIGPB6E66YOBJ9GT20N201902	DE	2022-03-31	esma	EUR	375,556,713					
AUTSDE000115101420202	NULL	DE	2022-03-31	ecb	EUR	371,735,975	100.0%	2022-Q1	DE	AUT	100%
AUTSDE000115101420202	D2OIGPB6E66YOBJ9GT20N202001	DE	2022-03-31	esma	EUR	371,735,975					
AUTSDE000115101620215	NULL	DE	2022-03-31	ecb	EUR	923,899,954	106.4%	2022-Q1	DE	AUT	105%+
AUTSDE000115101620215	D2OIGPB6E66YOBJ9GT20N202101	DE	2022-03-31	esma	EUR	868,517,784					
AUTSDE00024510222010	NULL	DE	2021-09-30	ecb	EUR	2,228,502,248	100.1%	2021-Q3	DE	AUT	100%-105%
AUTSDE00024510222010	5299004GLEUX88BSNB74N201001	DE	2021-09-30	esma	EUR	2,225,629,589					
AUTSDE00024510502015	NULL	DE	2021-09-30	ecb	EUR	10,622,860,721	106.1%	2021-Q3	DE	AUT	105%+
AUTSDE00024510502015	5299004GLEUX88BSNB74N201501	DE	2021-09-30	esma	EUR	10,013,667,063					
AUTSDE00024510682019	NULL	DE	2021-09-30	ecb	EUR	104,240,301	100.9%	2021-Q3	DE	AUT	100%-105%
AUTSDE00024510682019	5299004GLEUX88BSNB74N201901	DE	2021-09-30	esma	EUR	103,320,490					
AUTSDE00024510692019	NULL	DE	2021-09-30	ecb	EUR	265,062,343	100.2%	2021-Q3	DE	AUT	100%-105%
AUTSDE00024510692019	5299004GLEUX88BSNB74N201902	DE	2021-09-30	esma	EUR	264,575,133					
AUTSDE00024510712020	NULL	DE	2021-09-30	ecb	EUR	371,688,474	100.0%	2021-Q3	DE	AUT	100%
AUTSDE00024510712020	5299004GLEUX88BSNB74N202001	DE	2021-09-30	esma	EUR	371,688,474					
AUTSDE00024510752020	NULL	DE	2021-09-30	ecb	EUR	633,304,371	100.0%	2021-Q3	DE	AUT	100%
AUTSDE00024510752020	5299004GLEUX88BSNB74N202002	DE	2021-09-30	esma	EUR	633,304,371					
AUTSDE00024510762021	NULL	DE	2021-09-30	ecb	EUR	742,514,496	100.0%	2021-Q3	DE	AUT	100%
AUTSDE00024510762021	5299004GLEUX88BSNB74N202101	DE	2021-09-30	esma	EUR	742,514,496					
AUTSDE00024510772021	NULL	DE	2021-08-31	ecb	EUR	891,624,486	100.0%	2021-Q3	DE	AUT	100%
AUTSDE00024510772021	5299004GLEUX88BSNB74N202102	DE	2021-08-31	esma	EUR	891,624,486					
AUTSDE00026710042020	NULL	DE	2021-08-31	ecb	EUR	1,000,927,178	100.1%	2021-Q3	DE	AUT	100%-105%
AUTSDE00026710042020	5493008NC2QJNQ7O6Q18N202001	DE	2021-08-31	esma	EUR	1,000,184,657					
AUTSDE00028110092020	NULL	DE	2023-05-31	ecb	EUR	235,047,844	100.0%	2023-Q2	DE	AUT	100%
AUTSDE00028110092020	969500XZ6QWVX77HMF38N20200	DE	2023-05-31	esma	EUR	235,047,844					
AUTSDE00028110102020	NULL	DE	2023-05-31	ecb	EUR	201,871,471	100.0%	2023-Q2	DE	AUT	100%
AUTSDE00028110102020	969500XZ6QWVX77HMF38N20200	DE	2023-05-31	esma	EUR	201,871,471					
AUTSDE00028110120216	NULL	DE	2023-05-31	ecb	EUR	272,664,449	100.0%	2023-Q2	DE	AUT	100%
AUTSDE00028110120216	969500XZ6QWVX77HMF38N20210	DE	2023-05-31	esma	EUR	272,664,449					
AUTSDE00028110132022	NULL	DE	2022-01-31	ecb	EUR	737,920,979	100.0%	2022-Q1	DE	AUT	100%
AUTSDE00028110132022	529900DEAYRUPP22B339N202201	DE	2022-01-31	esma	EUR	737,920,979					
AUTSDE00028110142023	NULL	DE	2023-02-28	ecb	EUR	777,515,891	100.0%	2023-Q1	DE	AUT	100%
AUTSDE00028110142023	529900DEAYRUPP22B339N202301	DE	2023-02-28	esma	EUR	777,515,891					
AUTSDE00028310062019	NULL	DE	2021-07-31	ecb	EUR	653,937,499	94.1%	2021-Q3	DE	AUT	less than 95%
AUTSDE00028310062019	96950001WI712W7PQG45N201901	DE	2021-07-31	esma	EUR	694,745,707					
AUTSDE00028610232019	NULL	DE	2022-02-28	ecb	EUR	3,815,766,574	100.0%	2022-Q1	DE	AUT	100%
AUTSDE00028610232019	5299002CRNX7K6KOL397N201902	DE	2022-02-28	esma	EUR	3,815,766,574					

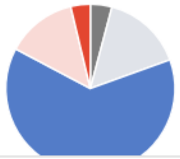
	Match category				
	less than 95%	95%-100%	100%	100%-105	105%+
2021-Q1	0	0	0	0	1
2021-Q2	1	13	20	4	1
2021-Q3	2	14	93	18	5
2021-Q4	0	4	6	0	1
2022-Q1	0	1	10	1	1
2022-Q2	0	0	6	0	0
2022-Q4	0	0	4	1	0
2023-Q1	0	1	10	0	0
2023-Q2	0	0	4	0	0
2023-Q3	0	0	0	1	0
2023-Q4	0	1	1	0	0
2024-Q1	0	1	0	0	0
2024-Q2	6	4	9	7	0
2024-Q3	2	2	5	4	1
2024-Q4	0	0	1	0	0

less than 95%	95%-100%	100%	100%-105%	105%+
11	41	169	36	10

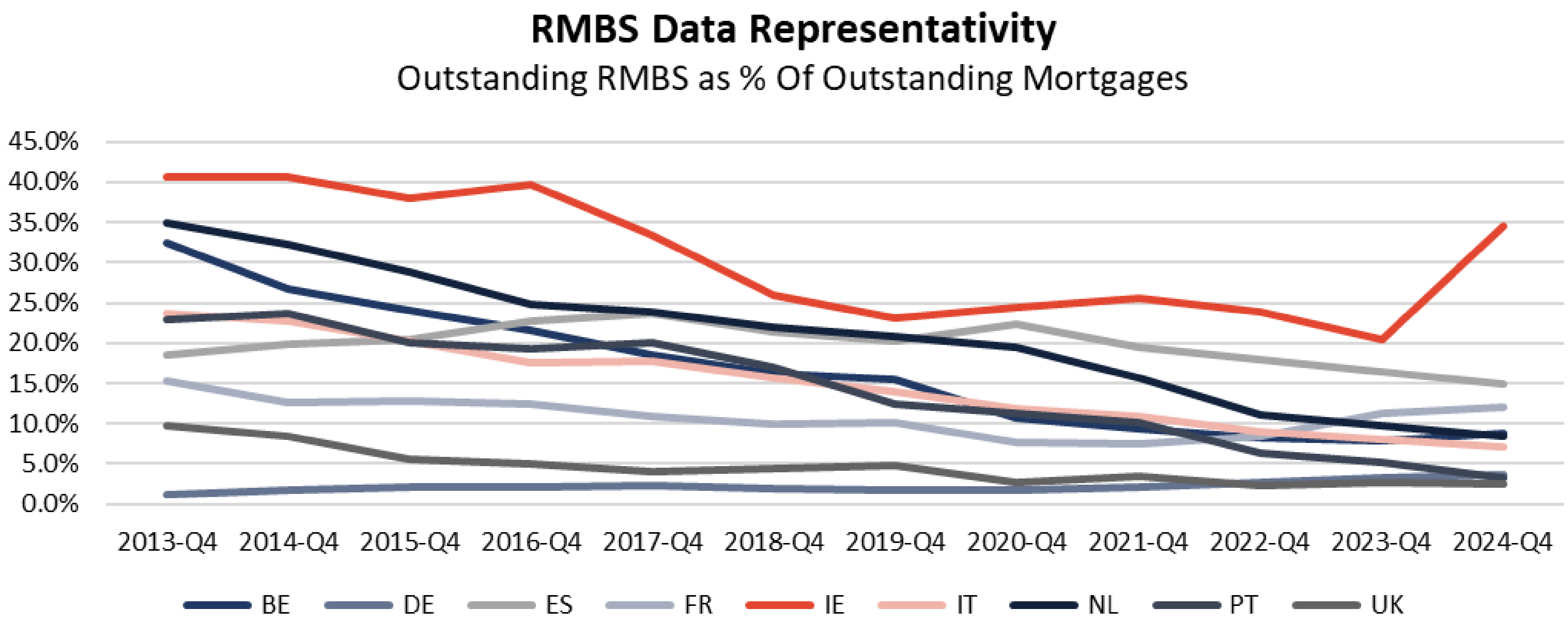
Timing and Quality of Overlaps
(Number of Observation vs Date of last Overlap)



Overlap Quality Overall



DATA REPRESENTATIVITY RMBS

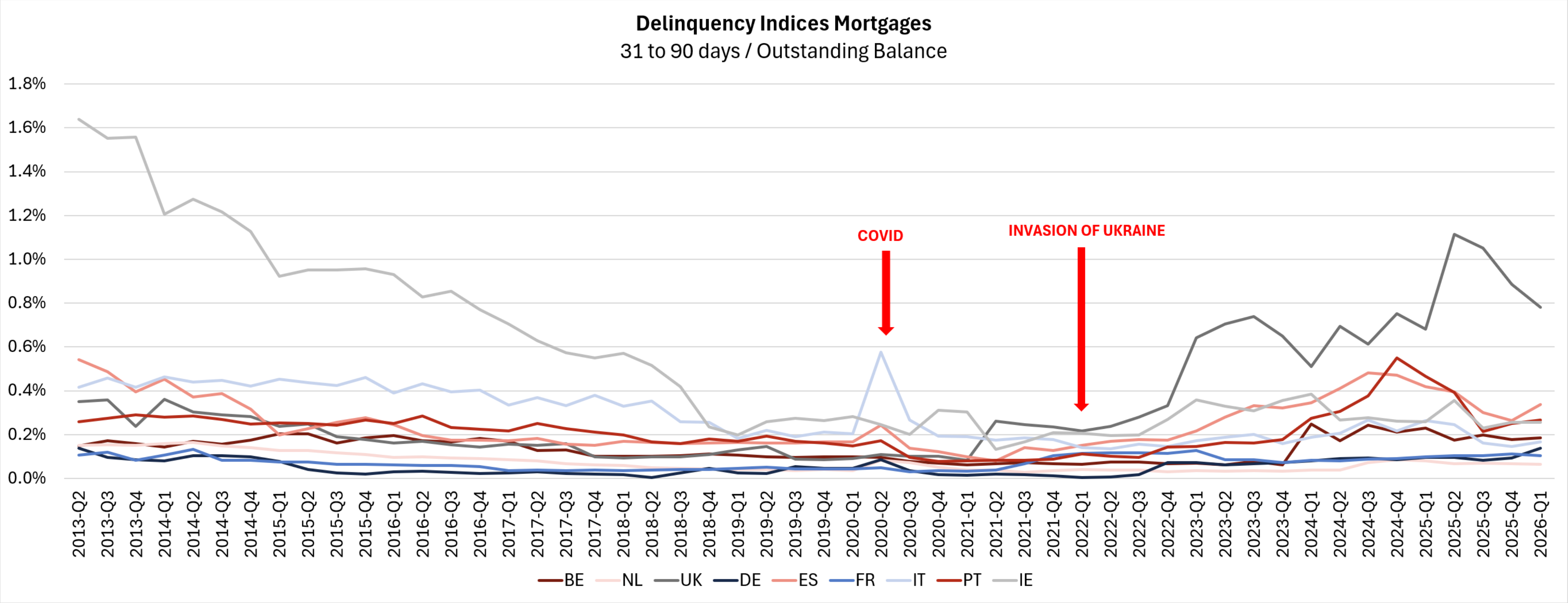


PERFORMANCE INDICES

EDW INDICES

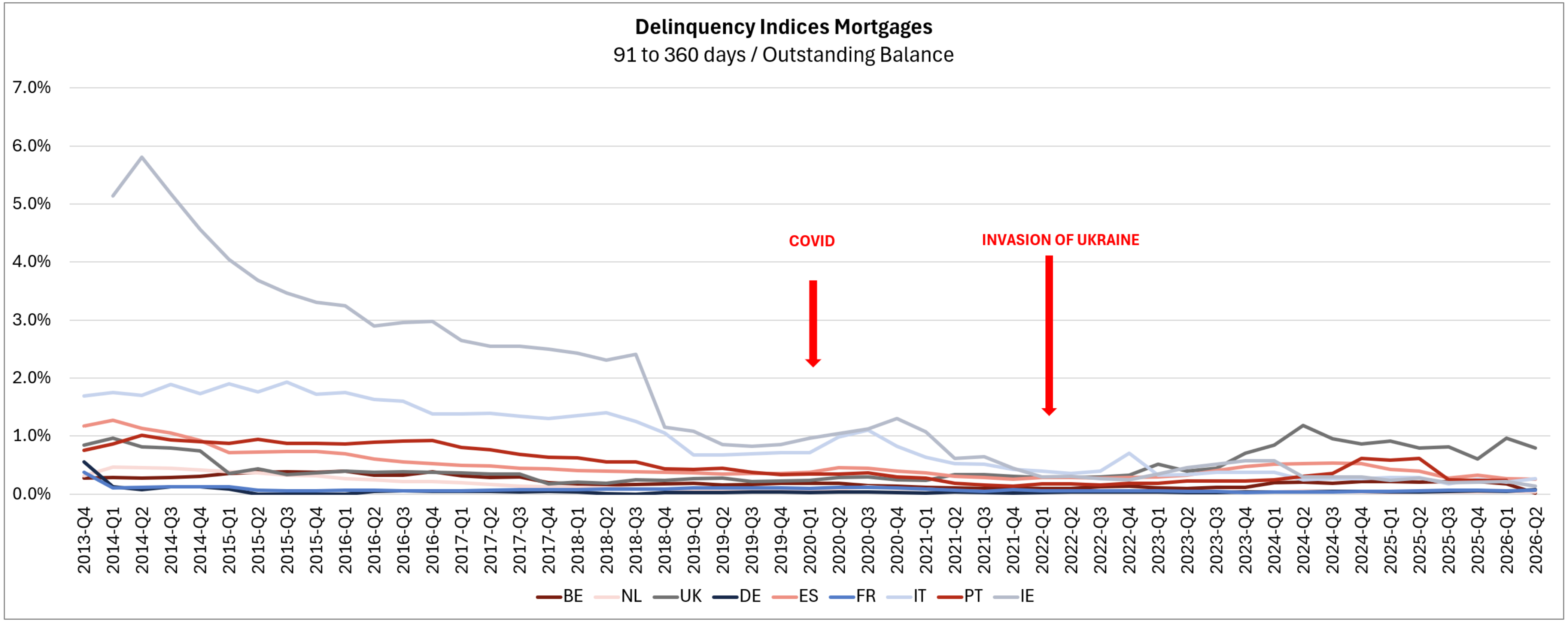
- Based on EDW's All-in-One Database
- Focusing on the markets for which the most data is available
- Short term delinquency index 31 – 90 days / current balance
  - Included after the first quarter of seasoning
  - Sensitive to emerging trends but volatile
- Long term delinquency index 91 – 360 days /current balance
  - Included after a year of seasoning
  - Bias when defaulted loans are systematically repurchased
- Rank ordering of 31 – 90 and 91 – 360 preserved up to a point

RMBS (1)



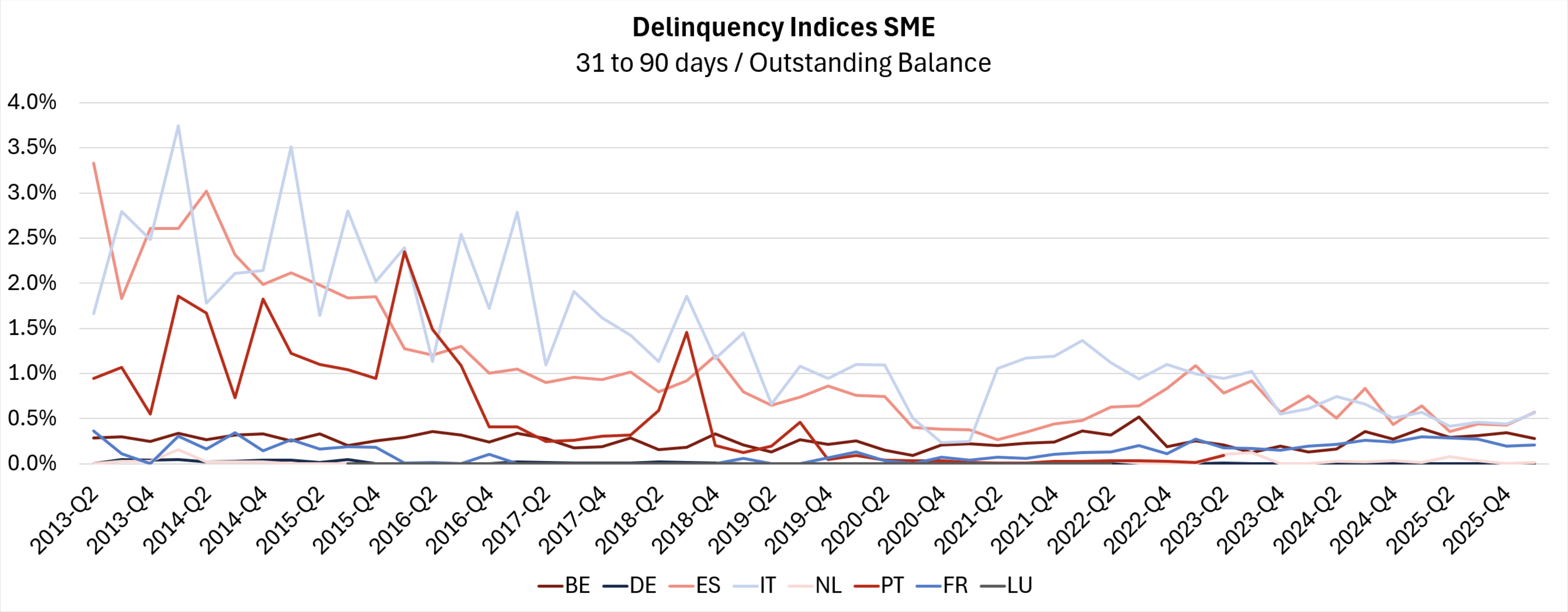
- Big picture: down until 2021 Q2 with spike in 2020-Q2, creeping up since to 2016 levels

RMBS (2)



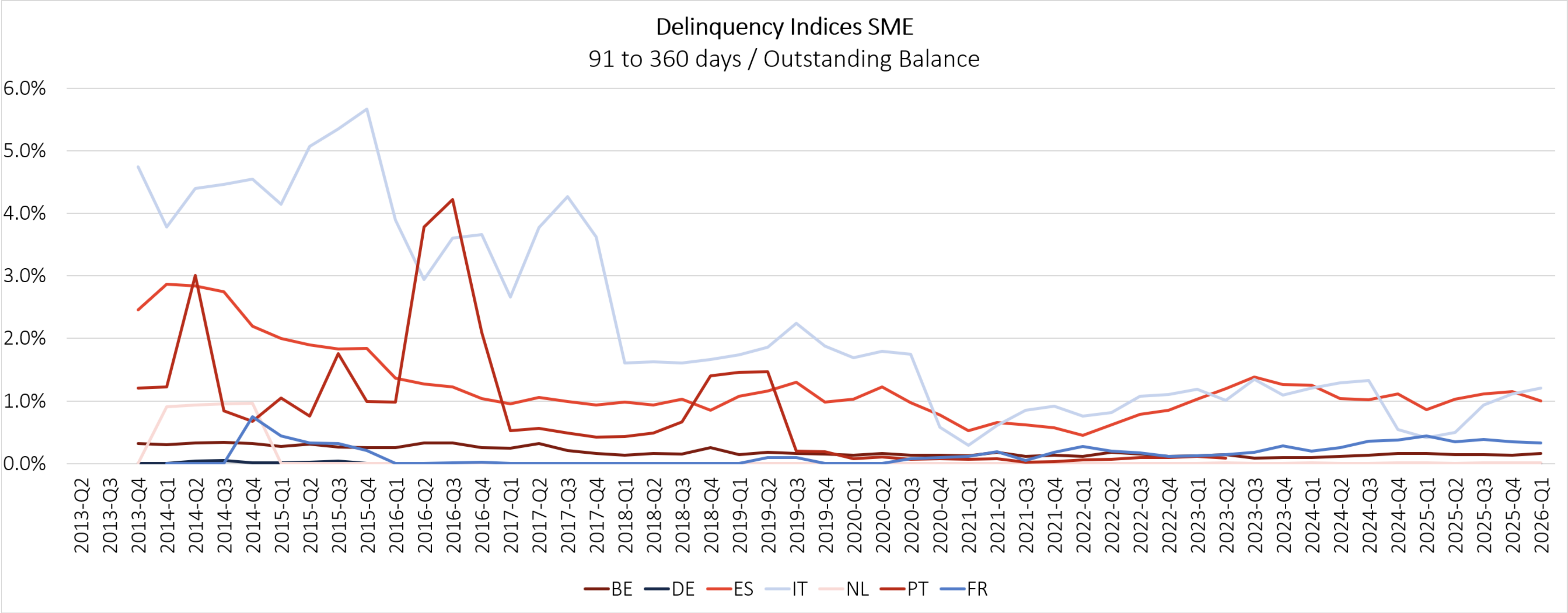
- Big picture: down until 2022 Q1 and close to historical low levels in most countries

SME (1)

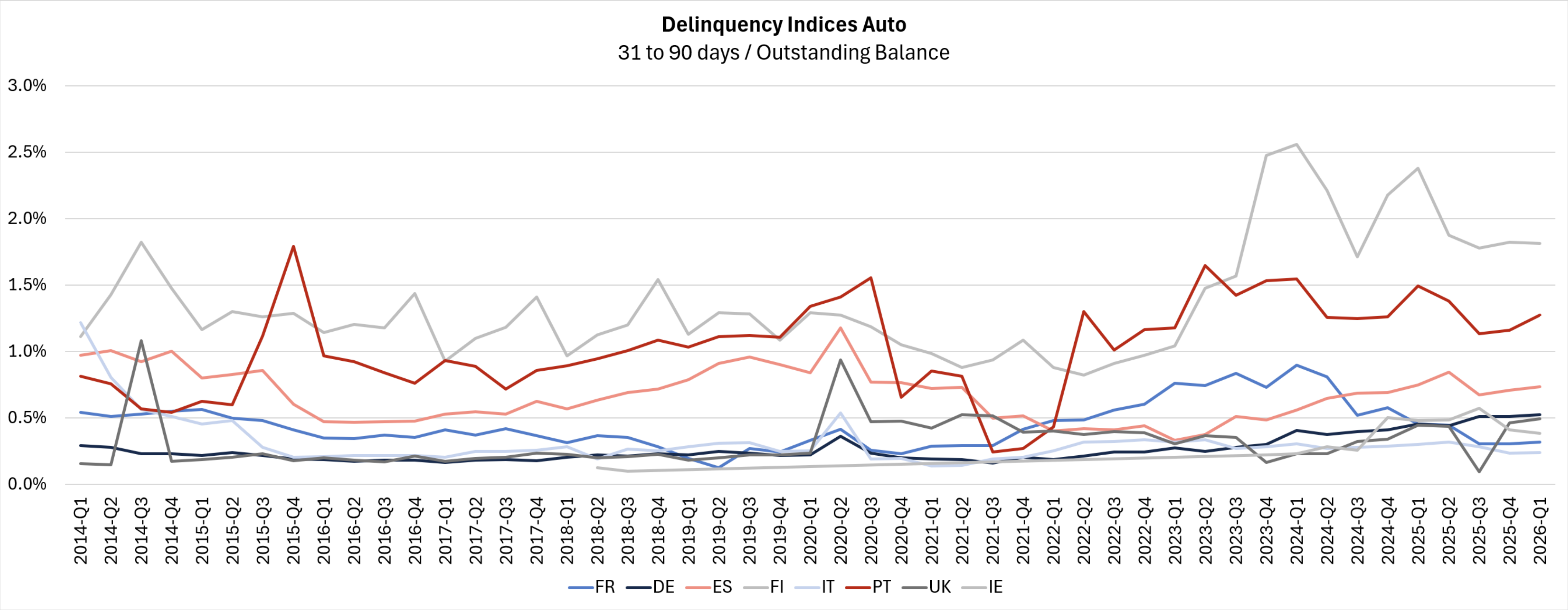


Delinquency Indices SME
31 to 90 days / Outstanding Balance
4.0%
3.5%
3.0%
2.5%
2.0%
1.5%
1.0%
0.5%
0.0%
2013-Q2
2013-Q4
2014-Q2
2014-Q4
2015-Q2
2015-Q4
2016-Q2
2016-Q4
2017-Q2
2017-Q4
2018-Q2
2018-Q4
2019-Q2
2019-Q4
2020-Q2
2020-Q4
2021-Q2
2021-Q4
2022-Q2
2022-Q4
2023-Q2
2023-Q4
2024-Q2
2024-Q4
2025-Q2
2025-Q4
BE
DE
ES
IT
NL
PT
FR
LU

SME (2)

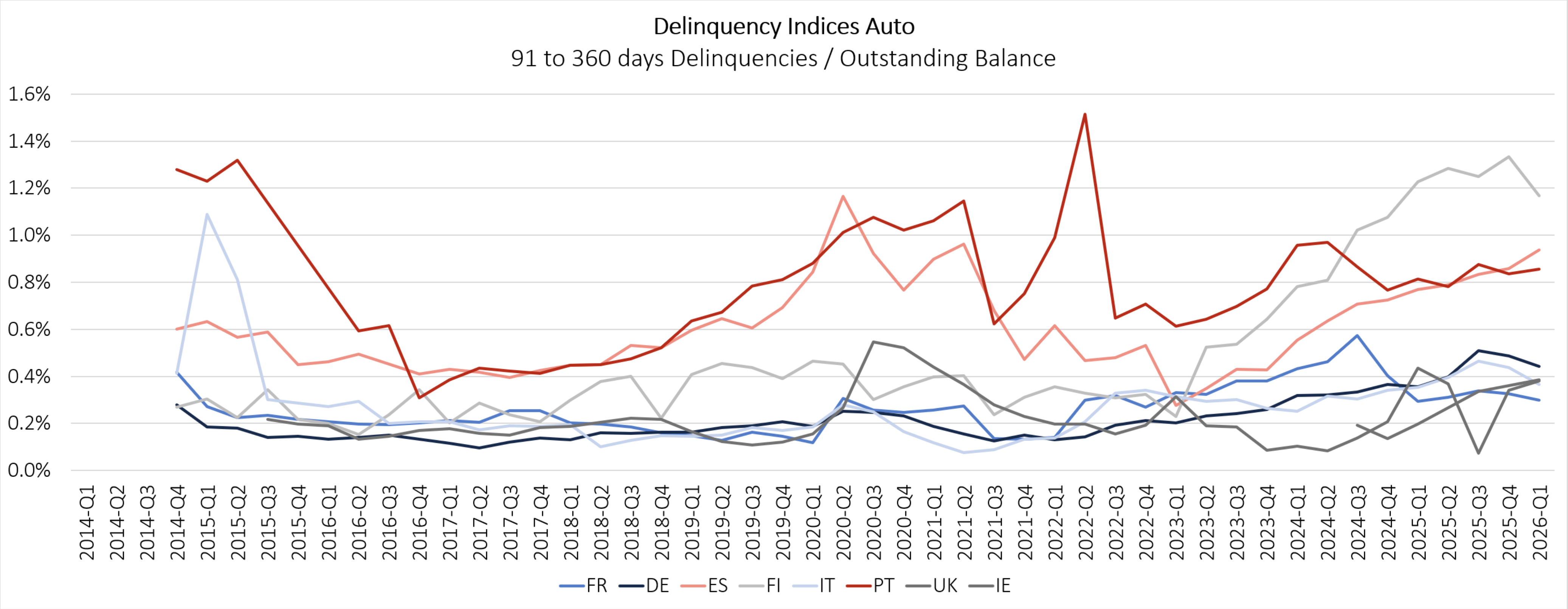

Delinquency Indices SME
91 to 360 days / Outstanding Balance
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
2013-Q2
2013-Q3
2013-Q4
2014-Q1
2014-Q2
2014-Q3
2014-Q4
2015-Q1
2015-Q2
2015-Q3
2015-Q4
2016-Q1
2016-Q2
2016-Q3
2016-Q4
2017-Q1
2017-Q2
2017-Q3
2017-Q4
2018-Q1
2018-Q2
2018-Q3
2018-Q4
2019-Q1
2019-Q2
2019-Q3
2019-Q4
2020-Q1
2020-Q2
2020-Q3
2020-Q4
2021-Q1
2021-Q2
2021-Q3
2021-Q4
2022-Q1
2022-Q2
2022-Q3
2022-Q4
2023-Q1
2023-Q2
2023-Q3
2023-Q4
2024-Q1
2024-Q2
2024-Q3
2024-Q4
2025-Q1
2025-Q2
2025-Q3
2025-Q4
2026-Q1
BE
DE
ES
IT
NL
PT
FR

AUTO (1)



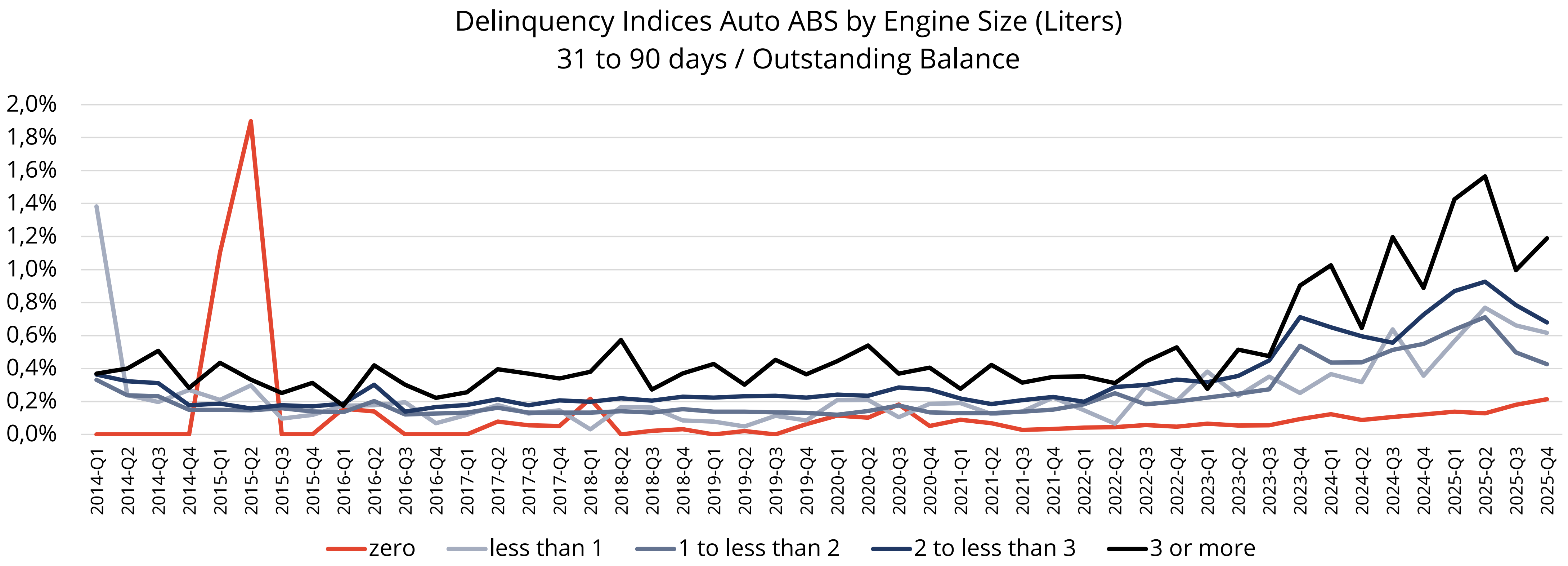
- Visible COVID spike in 2020 Q2, higher arrears in Finland, Portugal, Spain

AUTO (2)



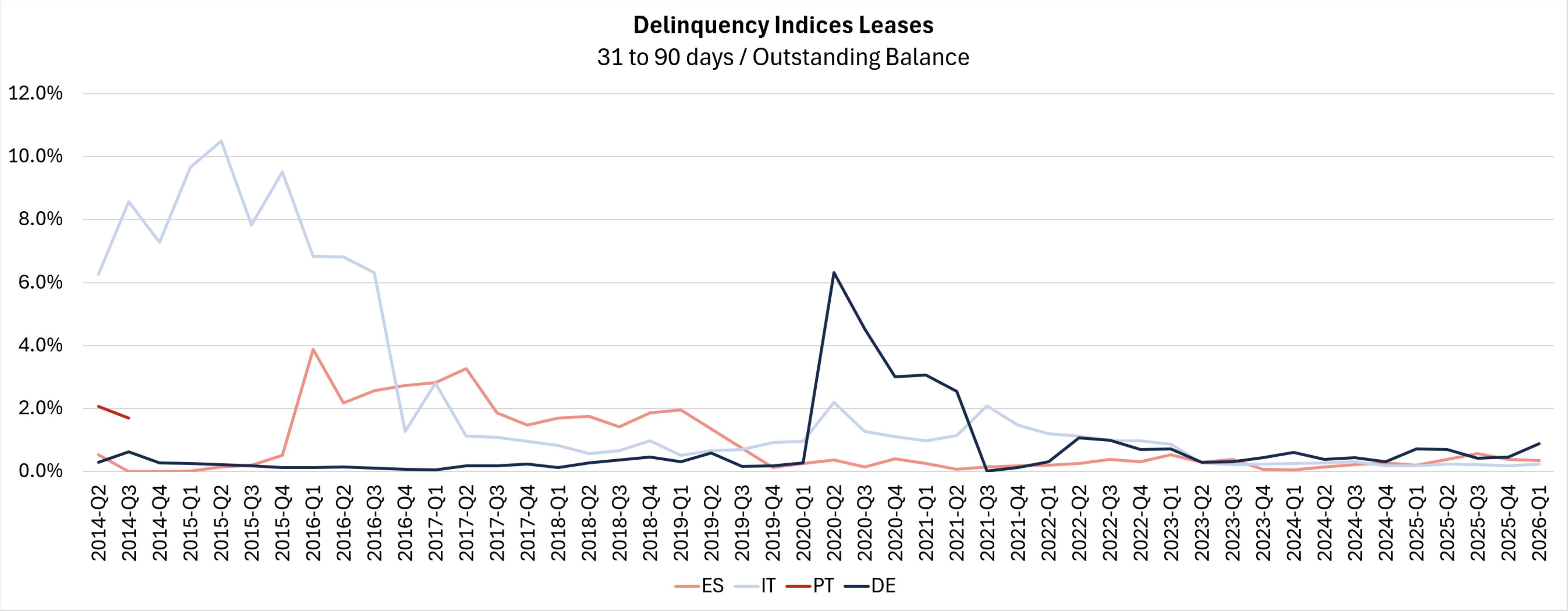
Delinquency Indices Auto
91 to 360 days Delinquencies / Outstanding Balance
1.6%
1.4%
1.2%
1.0%
0.8%
0.6%
0.4%
0.2%
0.0%
2014-Q1
2014-Q2
2014-Q3
2014-Q4
2015-Q1
2015-Q2
2015-Q3
2015-Q4
2016-Q1
2016-Q2
2016-Q3
2016-Q4
2017-Q1
2017-Q2
2017-Q3
2017-Q4
2018-Q1
2018-Q2
2018-Q3
2018-Q4
2019-Q1
2019-Q2
2019-Q3
2019-Q4
2020-Q1
2020-Q2
2020-Q3
2020-Q4
2021-Q1
2021-Q2
2021-Q3
2021-Q4
2022-Q1
2022-Q2
2022-Q3
2022-Q4
2023-Q1
2023-Q2
2023-Q3
2023-Q4
2024-Q1
2024-Q2
2024-Q3
2024-Q4
2025-Q1
2025-Q2
2025-Q3
2025-Q4
2026-Q1
FR
DE
ES
FI
IT
PT
UK
IE

AUTO (3)



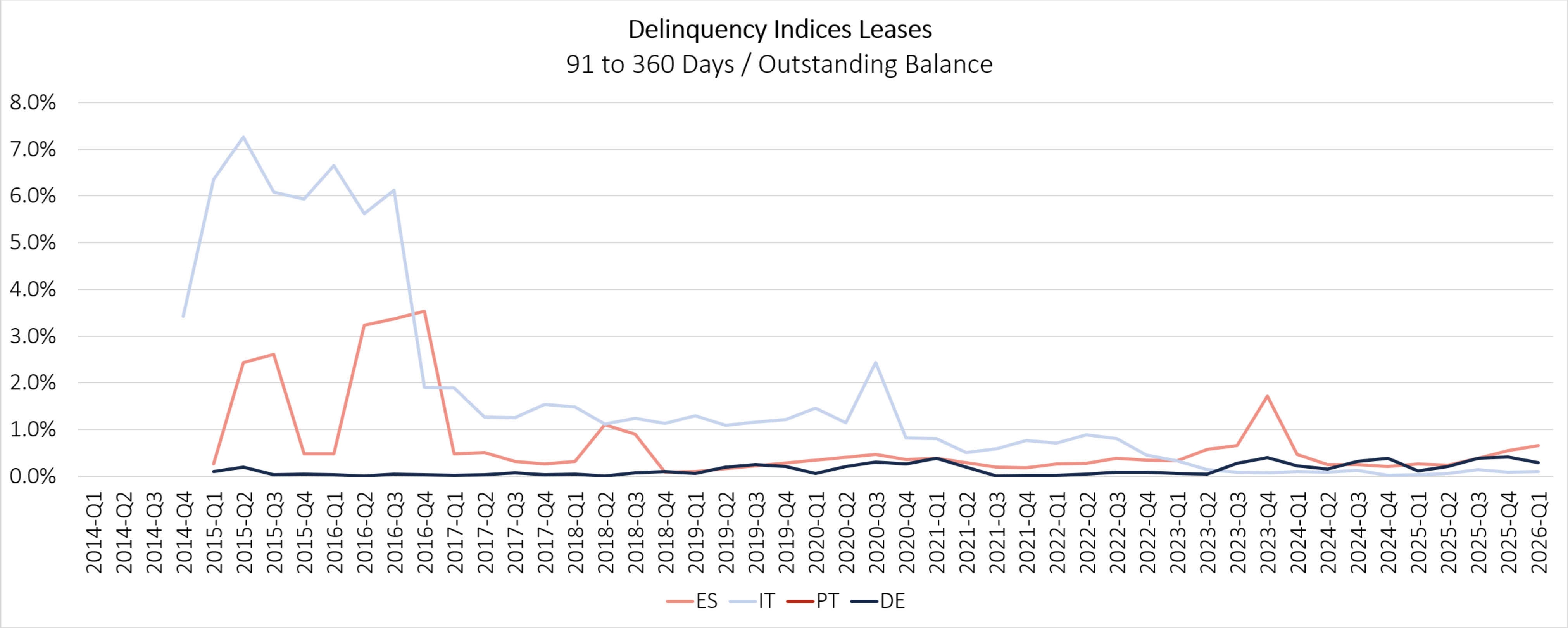
- Electric vehicles perform best, the bigger the engine the higher the arrears

LEASES (1)



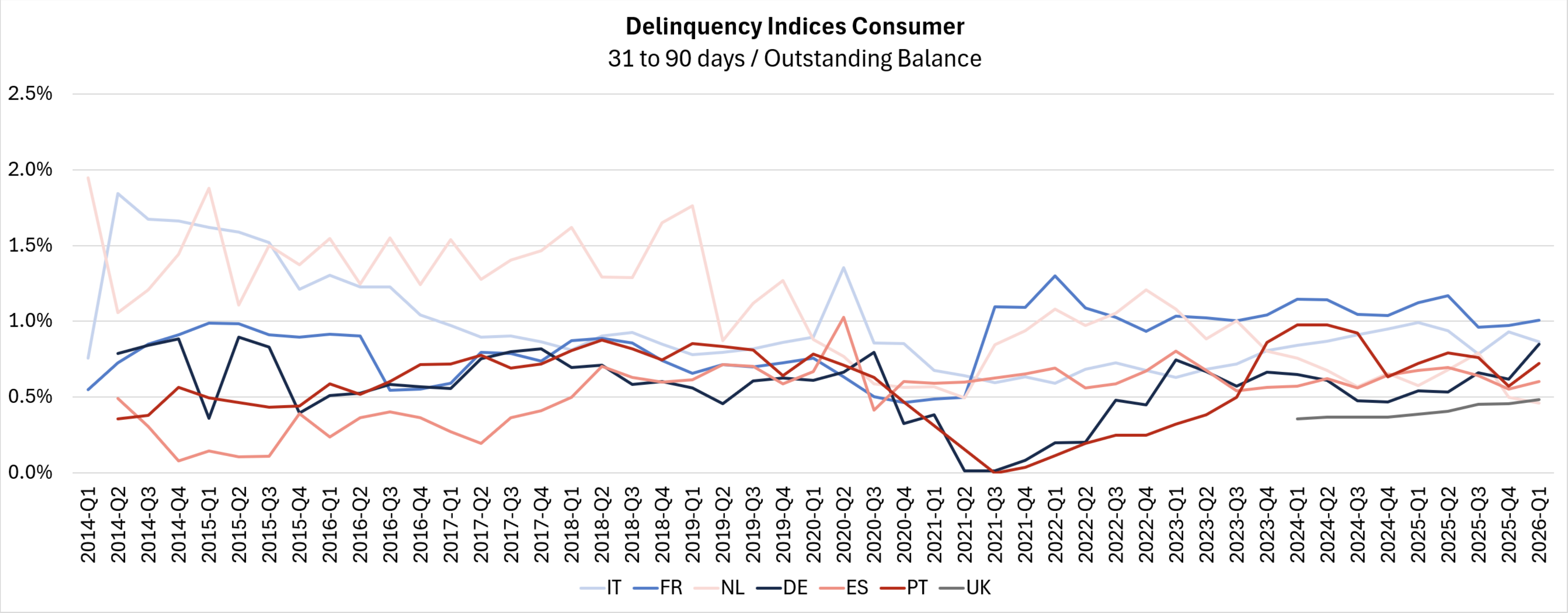
- Spike during COVID, low delinquencies since

LEASES (2)

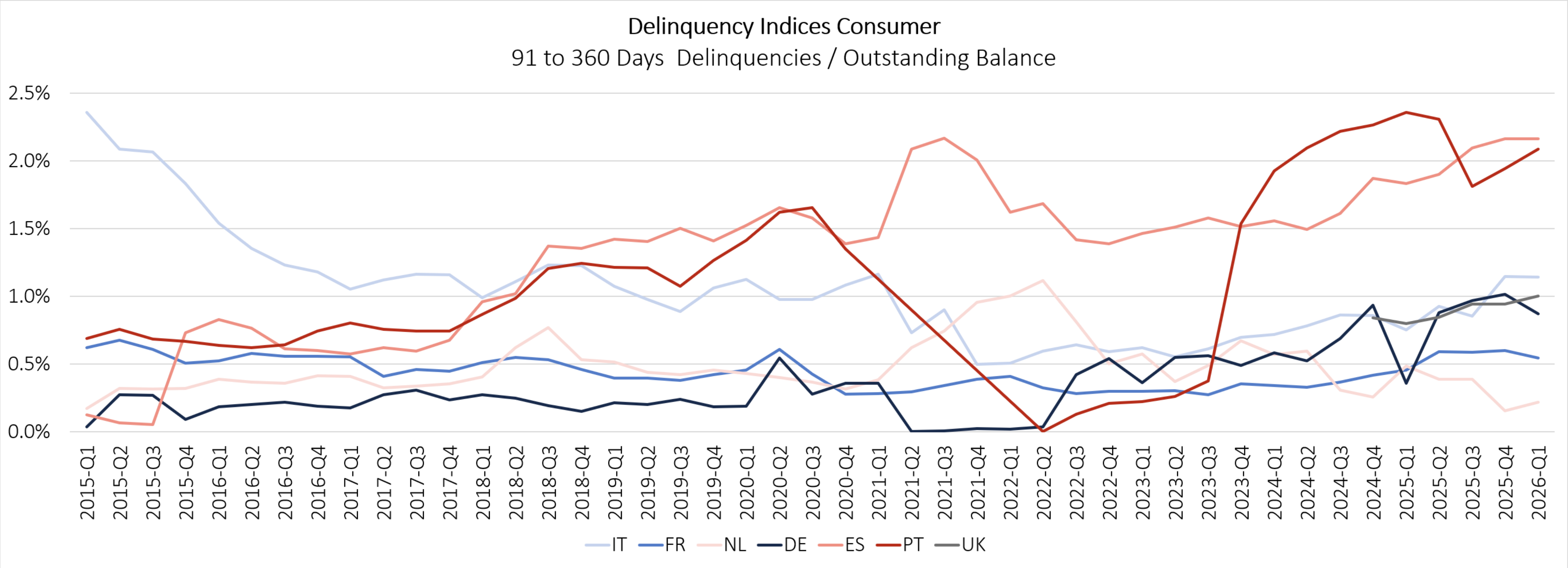


Delinquency Indices Leases
91 to 360 Days / Outstanding Balance
8.0%
7.0%
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
2014-Q1
2014-Q2
2014-Q3
2014-Q4
2015-Q1
2015-Q2
2015-Q3
2015-Q4
2016-Q1
2016-Q2
2016-Q3
2016-Q4
2017-Q1
2017-Q2
2017-Q3
2017-Q4
2018-Q1
2018-Q2
2018-Q3
2018-Q4
2019-Q1
2019-Q2
2019-Q3
2019-Q4
2020-Q1
2020-Q2
2020-Q3
2020-Q4
2021-Q1
2021-Q2
2021-Q3
2021-Q4
2022-Q1
2022-Q2
2022-Q3
2022-Q4
2023-Q1
2023-Q2
2023-Q3
2023-Q4
2024-Q1
2024-Q2
2024-Q3
2024-Q4
2025-Q1
2025-Q2
2025-Q3
2025-Q4
2026-Q1
ES
IT
PT
DE

CONSUMER LOANS (1)



CONSUMER LOANS (2)

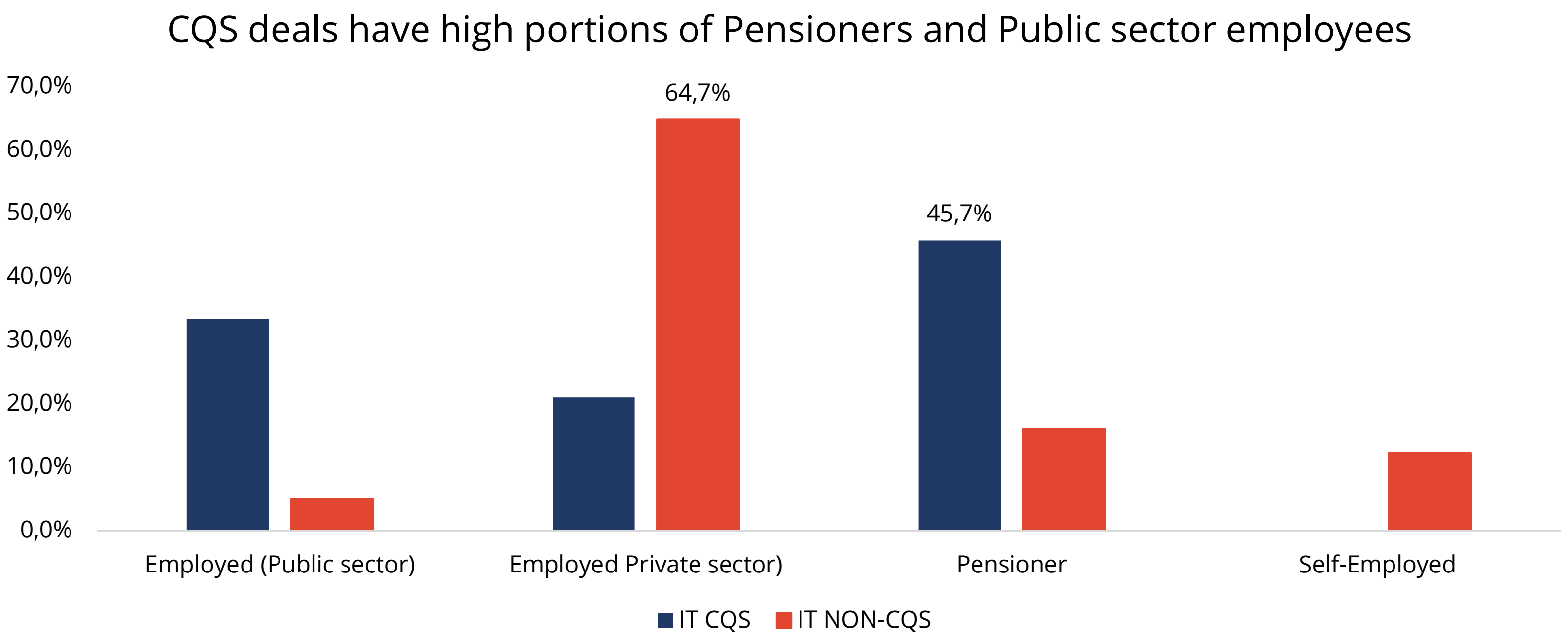


A CLOSER LOOK AT ITALIAN CONSUMER LOANS

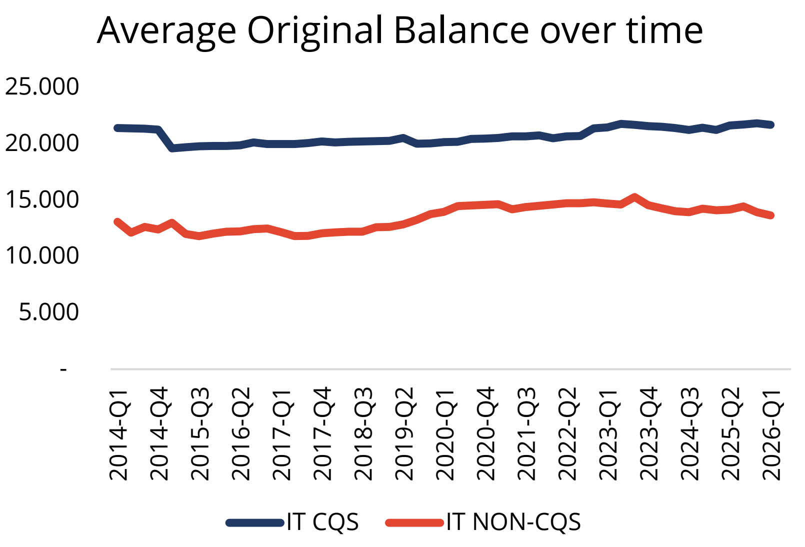
ITALIAN CQS DEALS IN FOCUS – WHAT DATA IS AVAILABLE

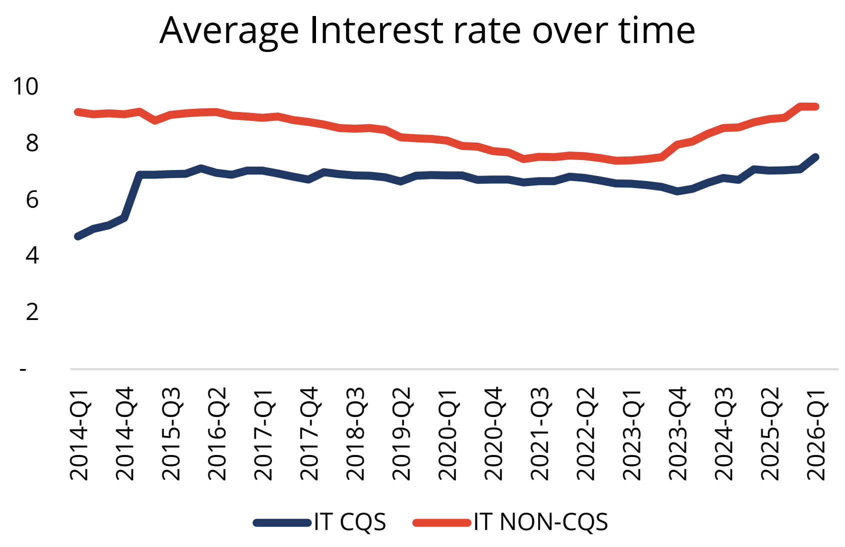
- EDW hosts loan-level data for 119 Italian Consumer ABS deals
- 39 of them are CQS deals
- CQS deals are backed by consumer loans whose monthly instalments are deducted directly from borrowers’ salaries or pensions
- These deals typically include three loan types :
  - **CQS loans:** assignment of up to one fifth of the salary ("Cessione del Quinto dello Stipendio")
  - **CQP loans:** assignment of up to one fifth of the pension ("Cessione del Quinto della Pensione")
  - **DP loans:** delegation of Payment ("Delegazione di Pagamento")

ITALIAN CQS DEALS IN FOCUS – EMPLOYMENT TYPE BREAKDOWN

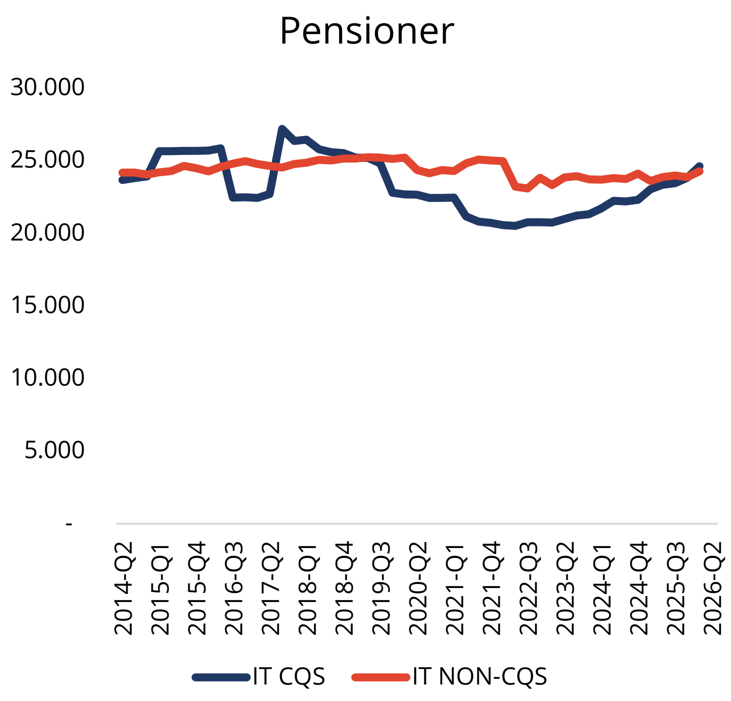


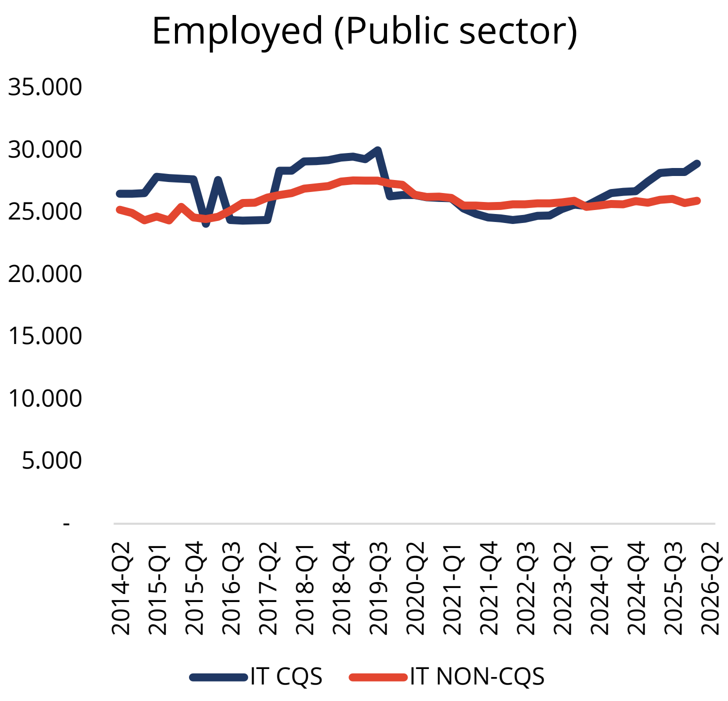
ITALIAN CQS DEALS IN FOCUS – AVERAGE LOAN SIZE AND INTEREST RATES

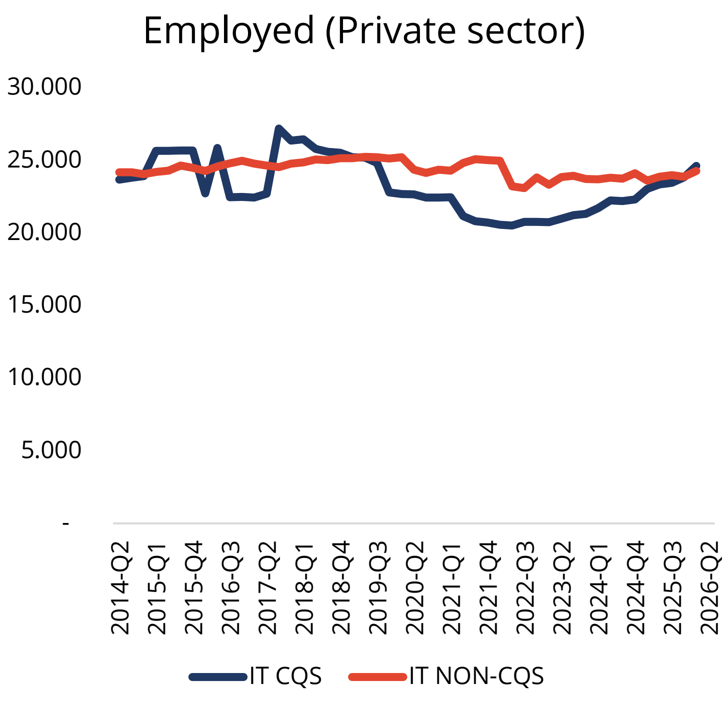




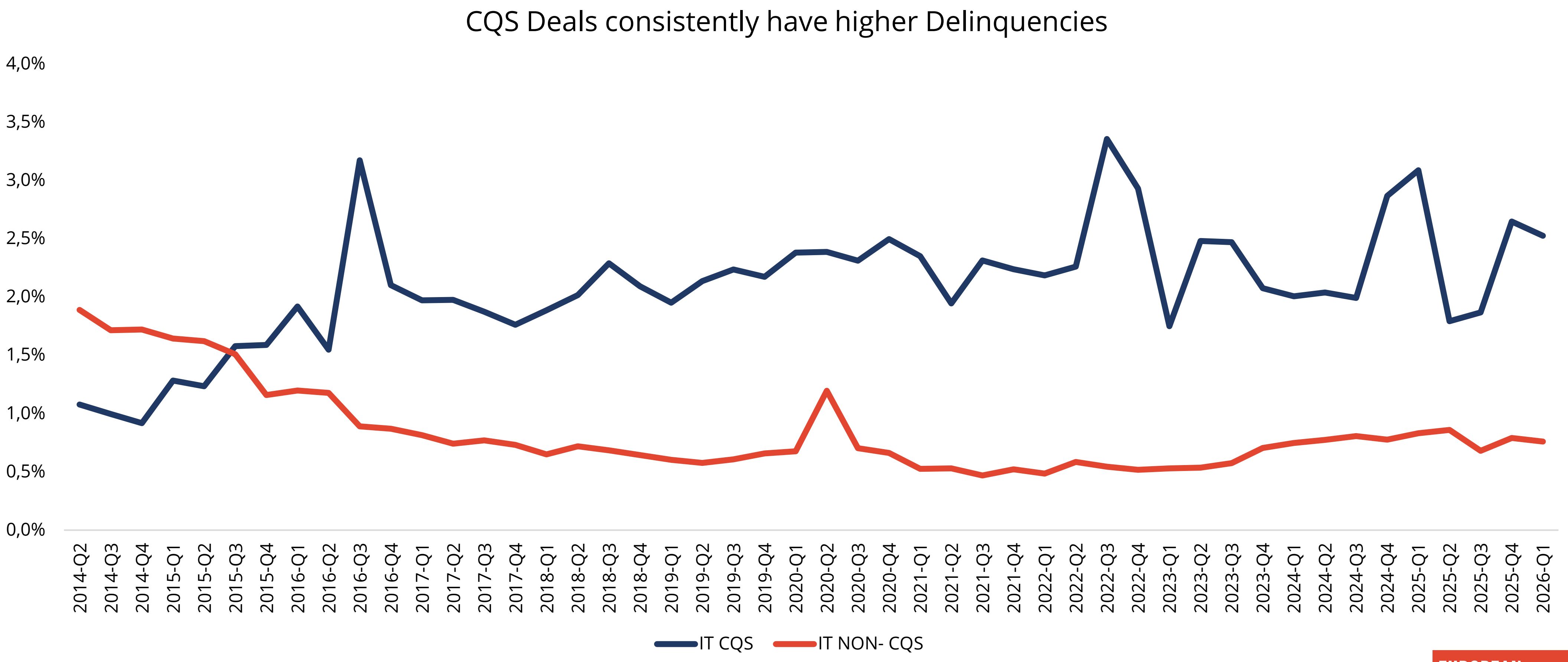
ITALIAN CQS DEALS IN FOCUS – AVERAGE INCOMES ACROSS BORROWERS EMPLOYMENT TYPE



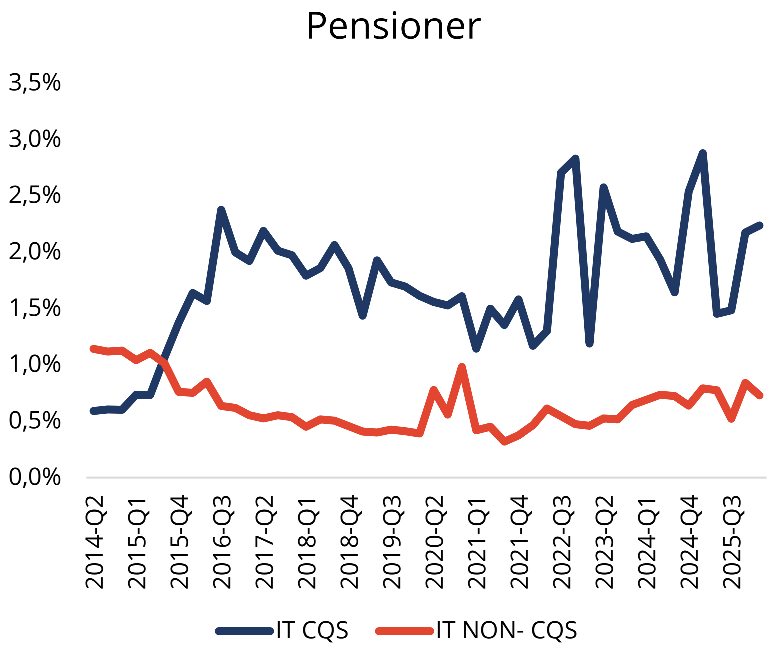


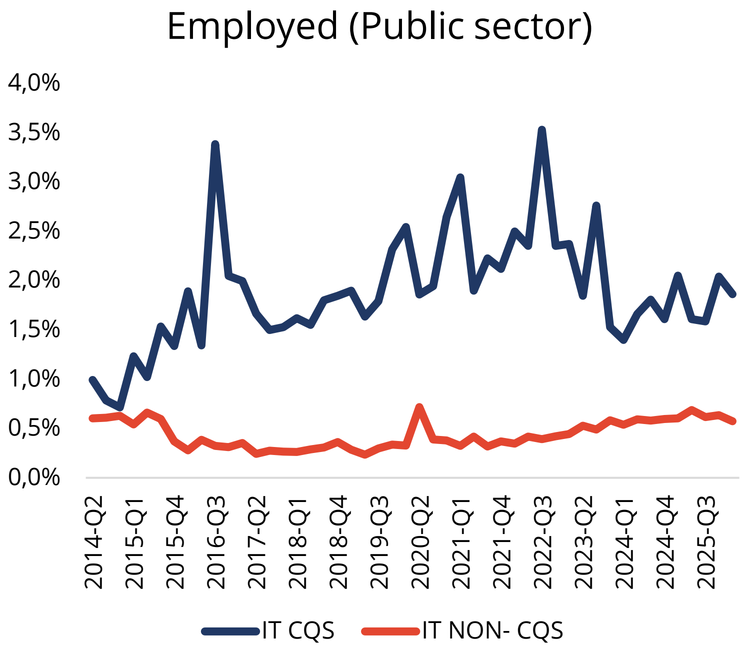


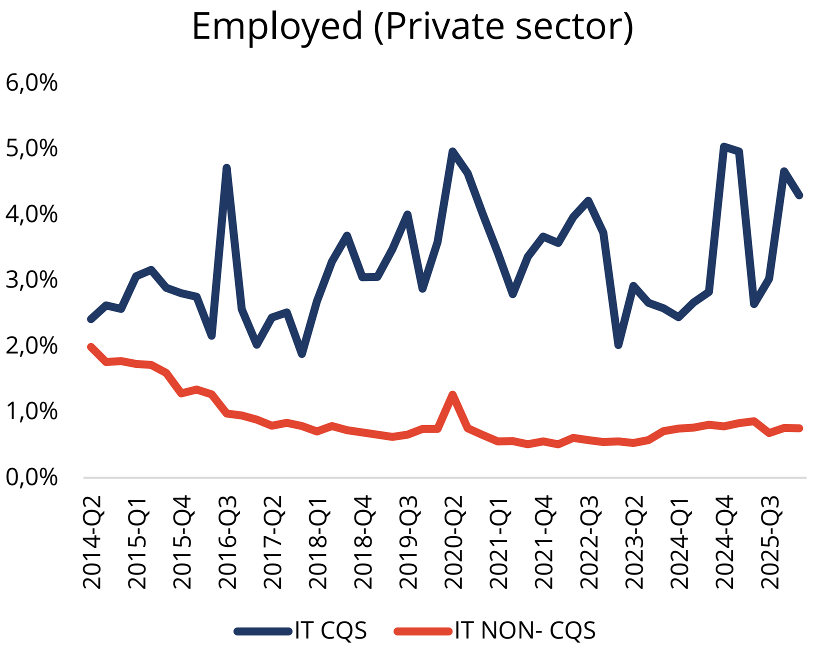
ITALIAN CQS DEALS IN FOCUS – 31 TO 90 DAYS DELINQUENCIES



ITALIAN CQS DEALS IN FOCUS – 31 TO 90 DAYS DELINQUENCIES ACROSS BORROWERS EMPLOYMENT TYPE





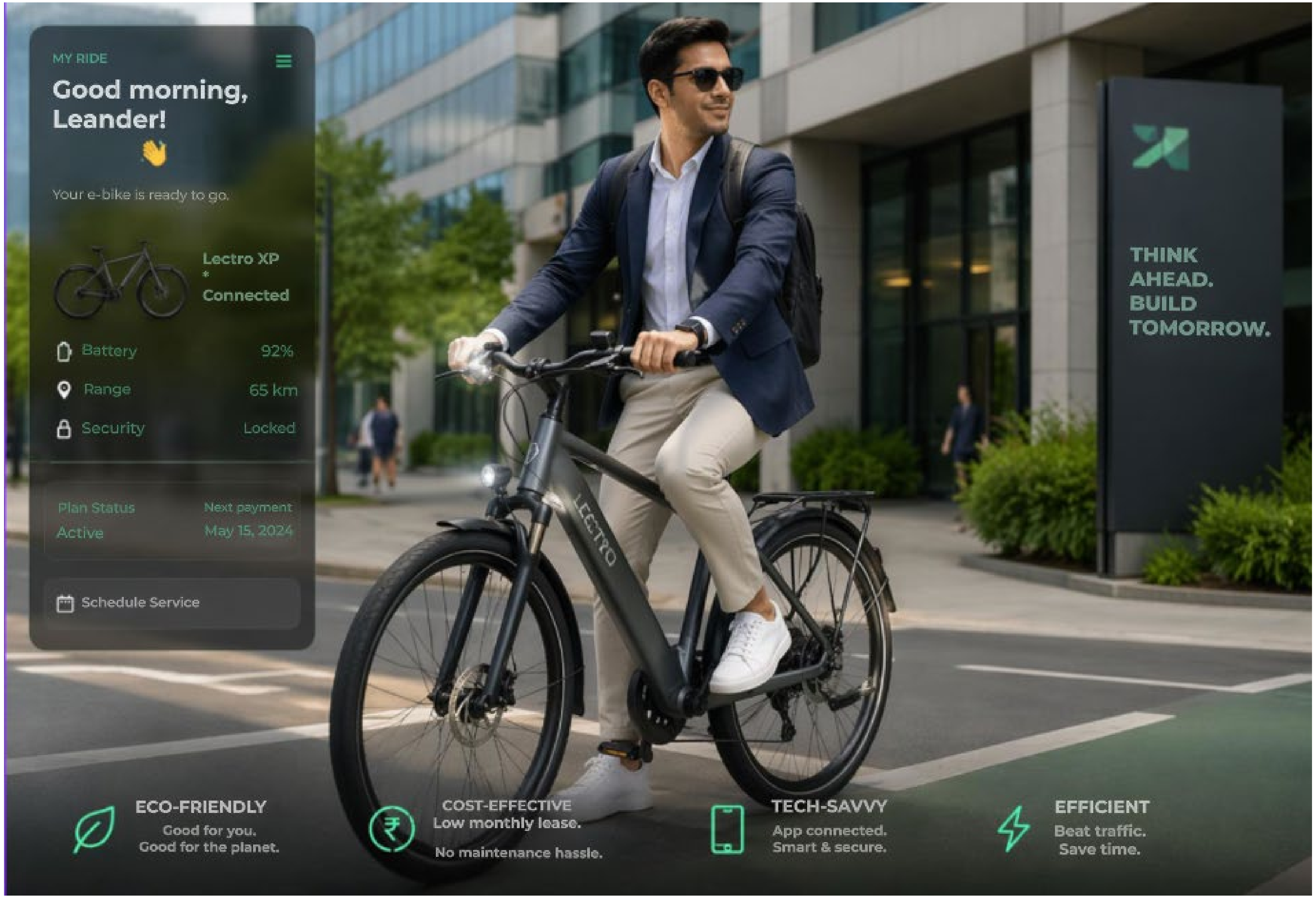


ITALIAN CQS DEALS IN FOCUS – SUMMARY

- CQS Borrowers seem to have similar income levels to standard Italian Consumer loans
- CQS Borrowers finance larger sums on average
- CQS loans exhibit lower interest rates
- CQS deals consistently show higher delinquencies but…
- CQS loans also have significantly higher recoveries*

* https://dbrs.morningstar.com/research/468070/morningstar-dbrs-upgrades-credit-ratings-on-five-series-of-the-marzio-finance-srl-securitisation-programme
https://dbrs.morningstar.com/research/471479/morningstar-dbrs-takes-credit-rating-actions-on-three-sunrise-transactions

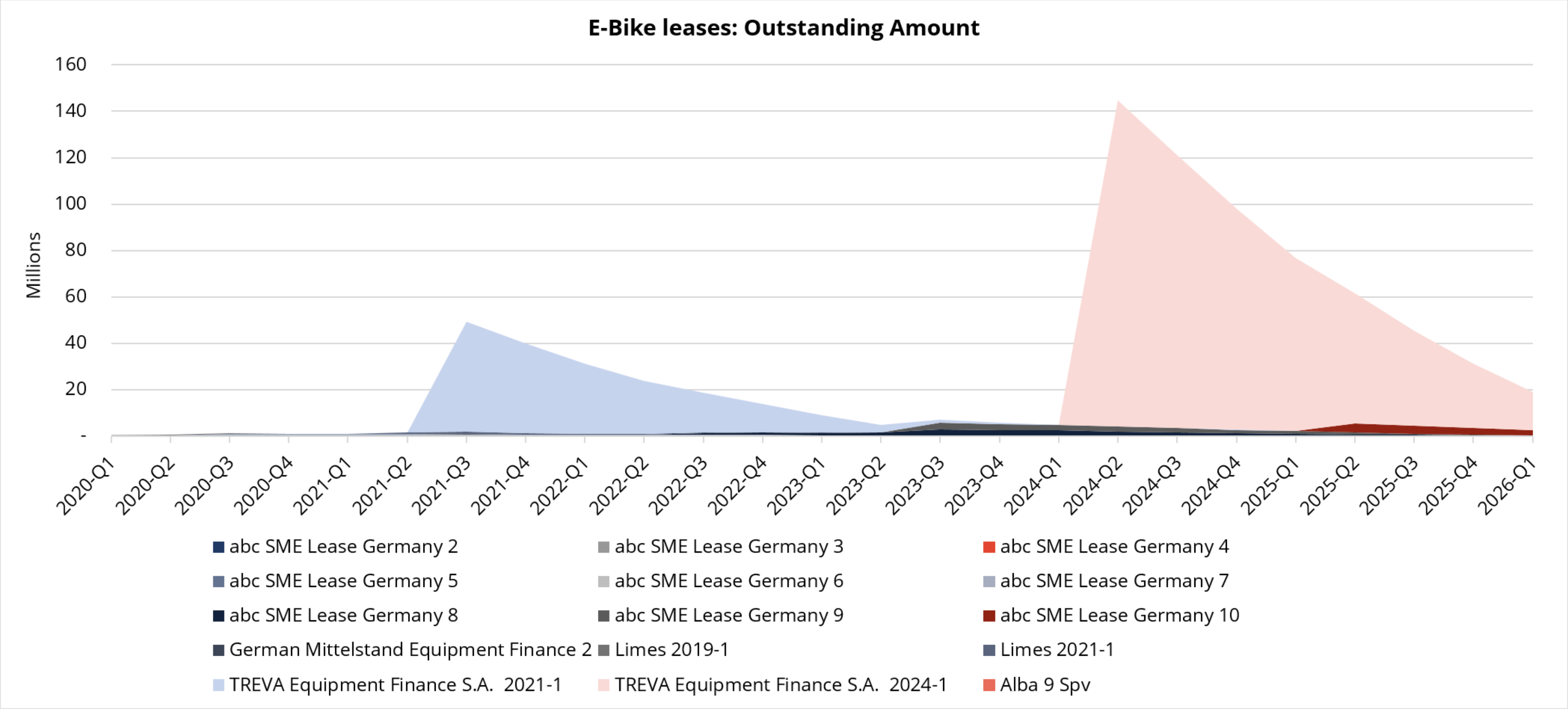
A LOOK AT E-BIKE LEASES...


MY RIDE
Good morning, Leander!
Your e-bike is ready to go.
Lectro XP
Connected
Battery 92%
Range 65 km
Security Locked
Plan Status Active
Next payment May 15, 2024
Schedule Service
THINK AHEAD. BUILD TOMORROW.
ECO-FRIENDLY
Good for you. Good for the planet.
COST-EFFECTIVE
Low monthly lease.
No maintenance hassle.
TECH-SAVVY
App connected. Smart & secure.
EFFICIENT
Beat traffic. Save time.

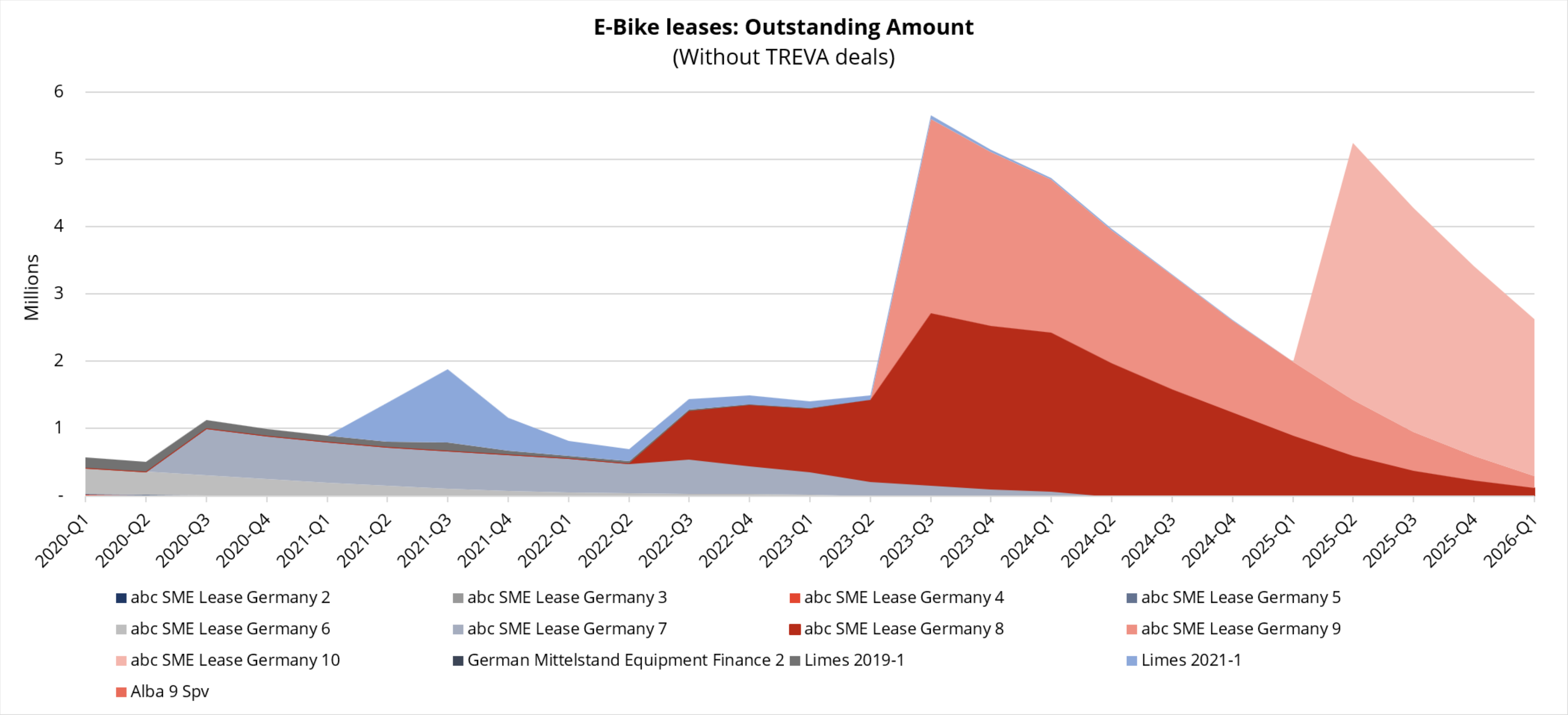
E-BIKE DATA IN EDW‘S SECURITISATION REPOSITORY PLATFORM

- E-bikes can be found in the Leasing template
- No “e-bike” category (only ”cars” or ”other vehicles”); clues are in free-text field LESL67 “model”
- EDW used AI to list existing bike makers, and asked what **keywords** identify e-bikes, manufacturer by manufacturer
- We identified bikes (“e” or not) from 40+ manufacturers, such as CUBE, RIESE & Muller, KALKHOFF, etc.
- EDW’s **All-In-One Database** thus has a collateral description where “e-bike” is a distinct entry

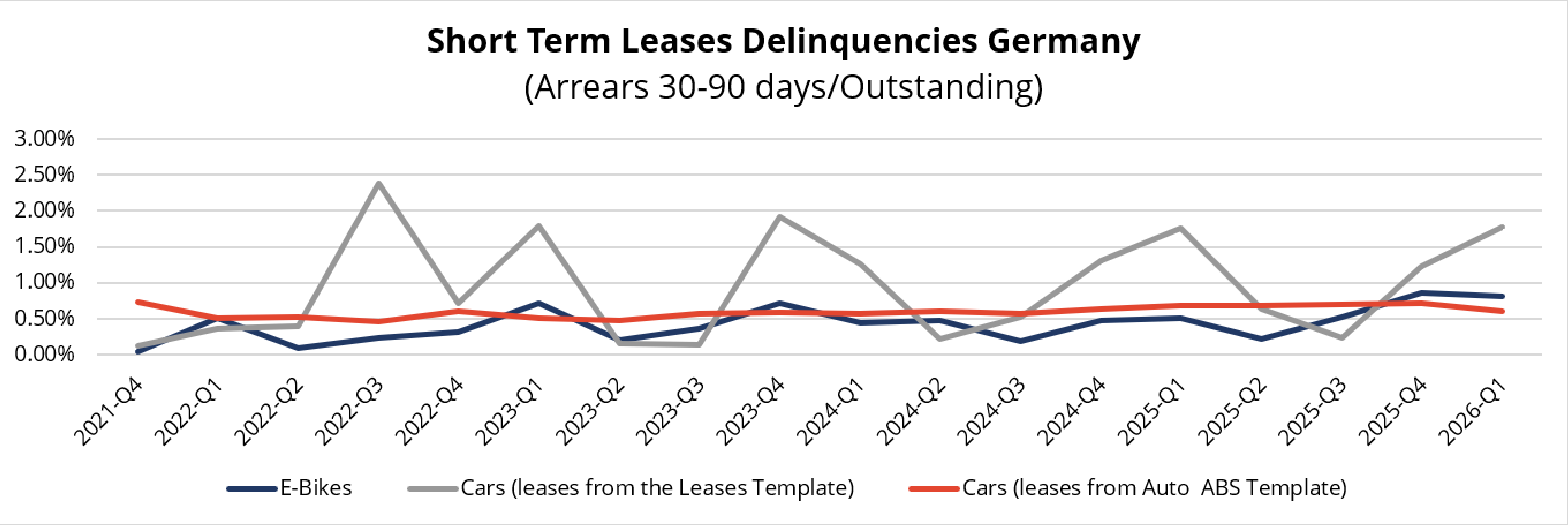
OUTSTANDING AMOUNT AND SECURITISATIONS



OUTSTANDING AMOUNT WITHOUT TREVA DEALS



DELINQUENCY RATES AUTO VS E-BIKE LEASES



THE “DIENSTRAD“ PECULIARITY…

	E-Bikes	Leasings
Wholesale trade, except of motor vehicles and motorcycles	7.95%	6.86%
Manufacture of machinery and equipment n.e.c.	7.02%	2.40%
Specialised construction activities	6.38%	7.37%
Manufacture of fabricated metal products, except machinery and equipment	6.37%	4.36%
Human health activities	5.30%	4.08%
Retail trade, except of motor vehicles and motorcycles	4.91%	5.27%
Social work activities without accommodation	3.72%	0.77%
Computer programming, consultancy and related activities	3.01%	1.12%
Financial service activities, except insurance and pension funding	2.92%	1.04%
Postal and courier activities	0.07%	0.35%
All else	52.36%	66.39%

- Unlike other leased assets, the e-bike in Germany is more a tax sponsored employee benefit
- One might expect delivery bikes to be part of the “postal and courier service”, but this isn’t the case in reality

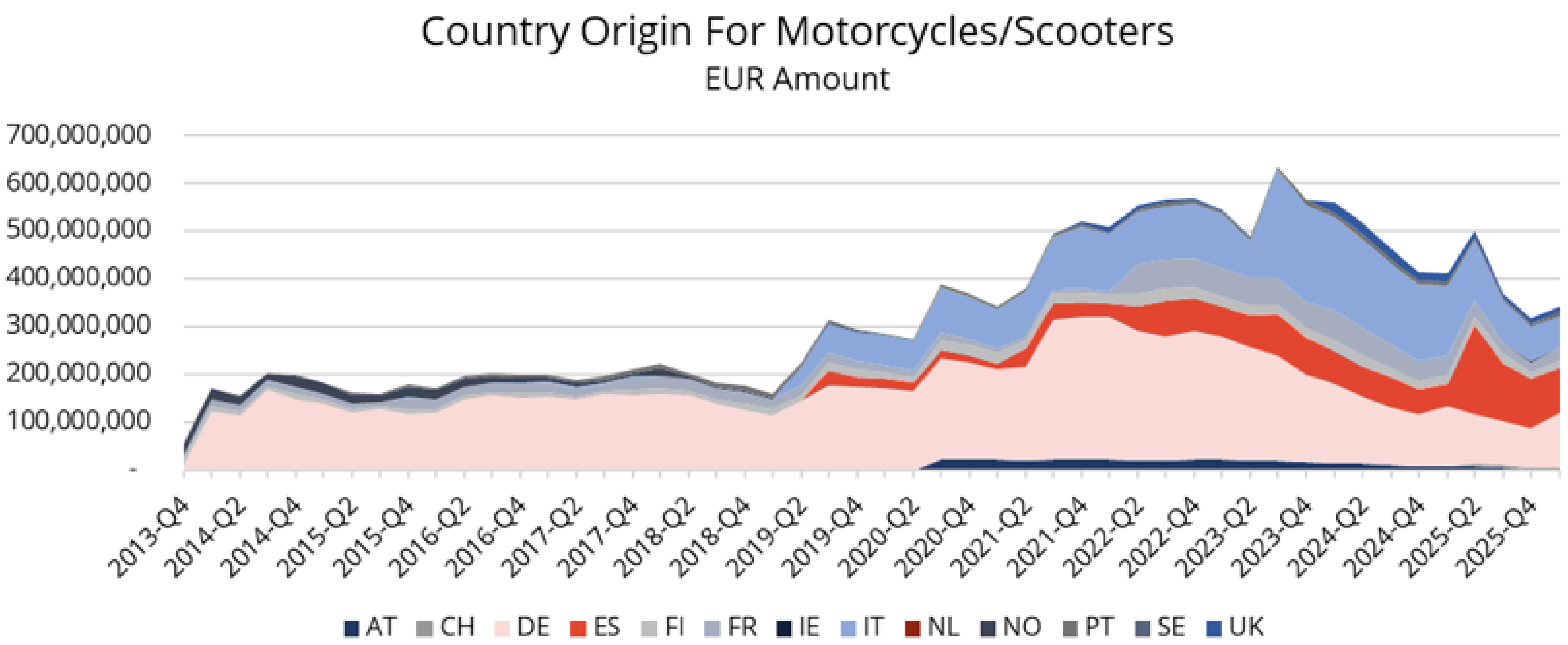
THE MOST DANGEROUS THING YOU CAN BUY ON CREDIT...


DRIVE SAFELY!
PEACE, FREEDOM, MEMORIES!
EXPERIENCED RIDERS PERFECT RIDE!
VALLEY 1000 ABS
TOURING EDITION
SCENIC ALPINE ROADS
COMFORT & CONTROL
PREMIUM TOURING
SAFETY FIRST
PRICE: $18,999
VALLEY
1000 ABS
The best things
in life aren't rushed.
ENJOY THE RIDE.
GOOD COMPANY GOOD ROADS GREAT LIFE

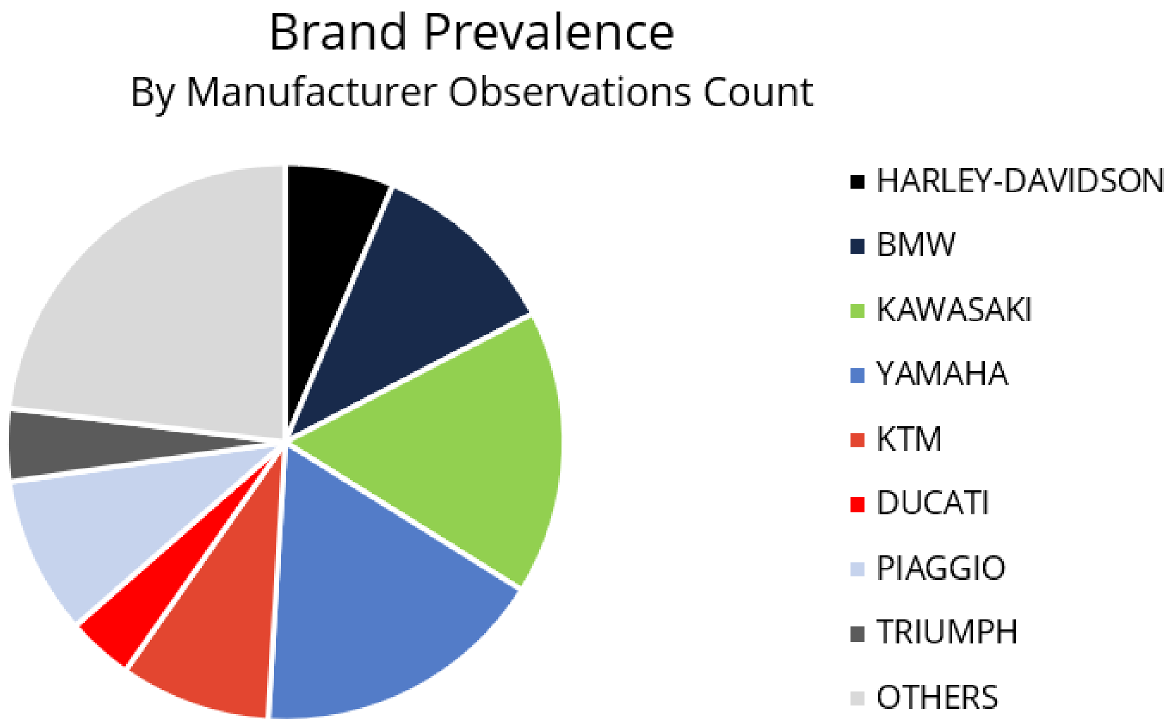
MOTORCYCLE DATA ON THE EDW PLATFORM

- As part of the **Green Auto Securitisation (GAS) project**, EDW identified motorcycles to not confuse them with cars
  - BMW makes cars and motorcycles with similar names; Honda and Suzuki also make bikes
  - Other manufacturers also make lorries
- Motorcycles are also interesting in that they are notoriously more dangerous than cars
  - The risk of severe injury or death is 25*+ greater with a motorcycle than a car
- As part of GAS, EDW found that small cars with small engines had lower delinquencies that the big ones. Does it work also for motorcycles?
- The question is interesting because in 40% of the cases we could determine the bike engine size, as engine size a is a key selling point in “bikerworld”

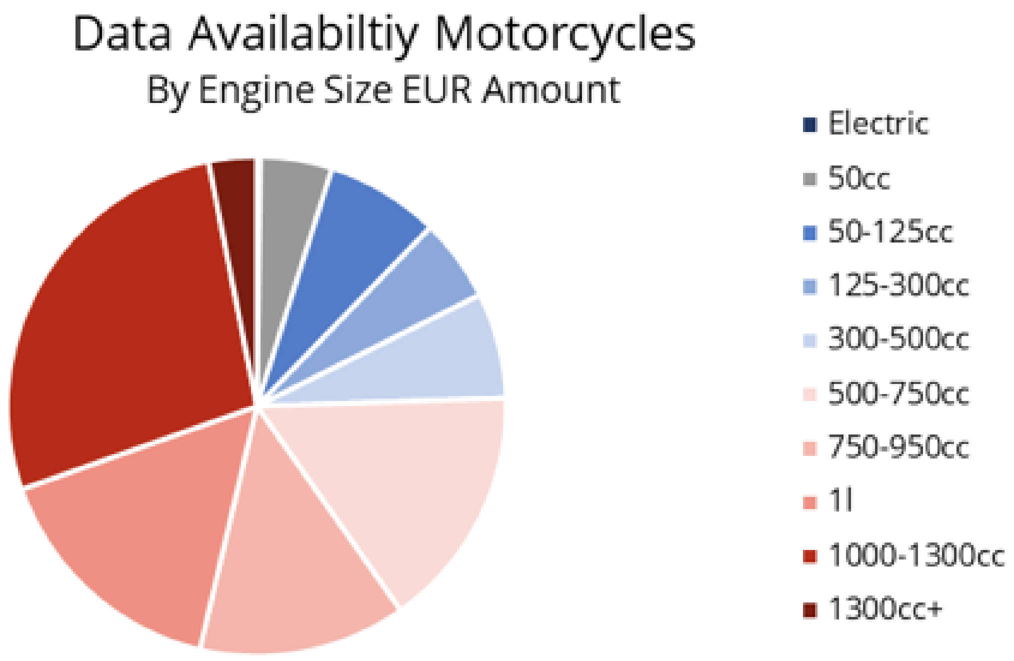
MOTORCYCLE PRESENCE BY COUNTRY (VOLUMES)



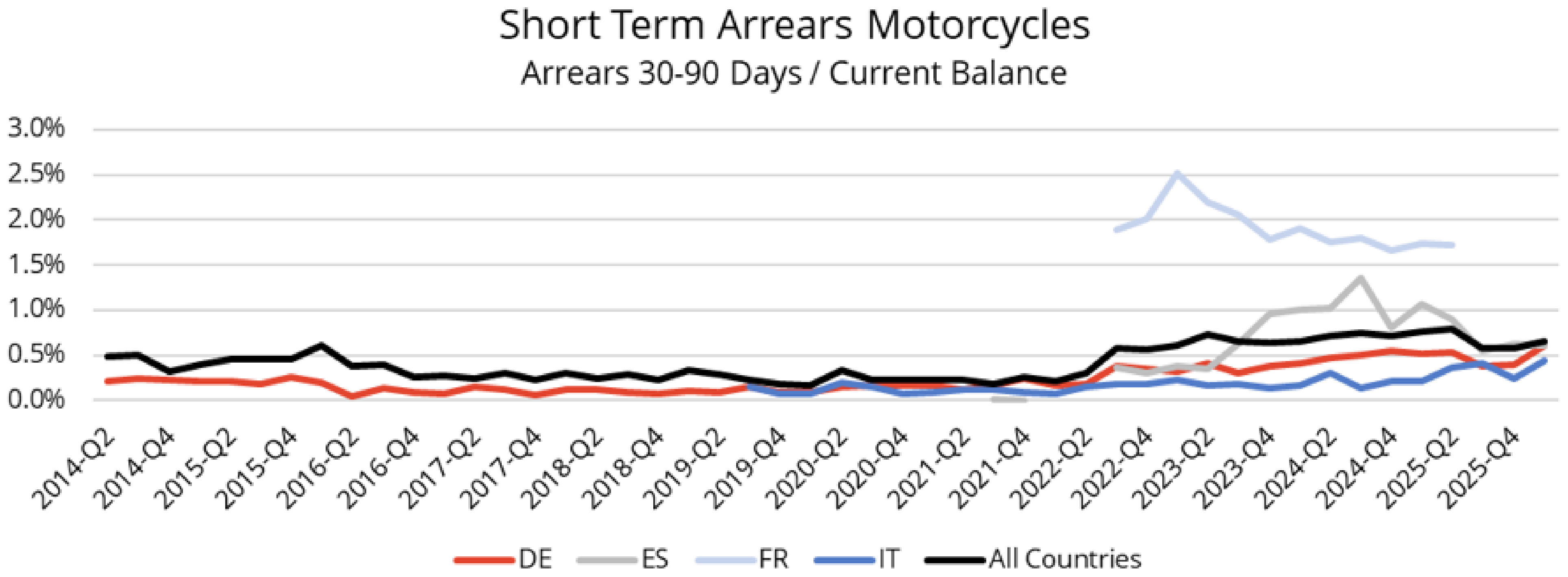
MOTORCYCLE BRAND PREVALENCE (BRANDS)



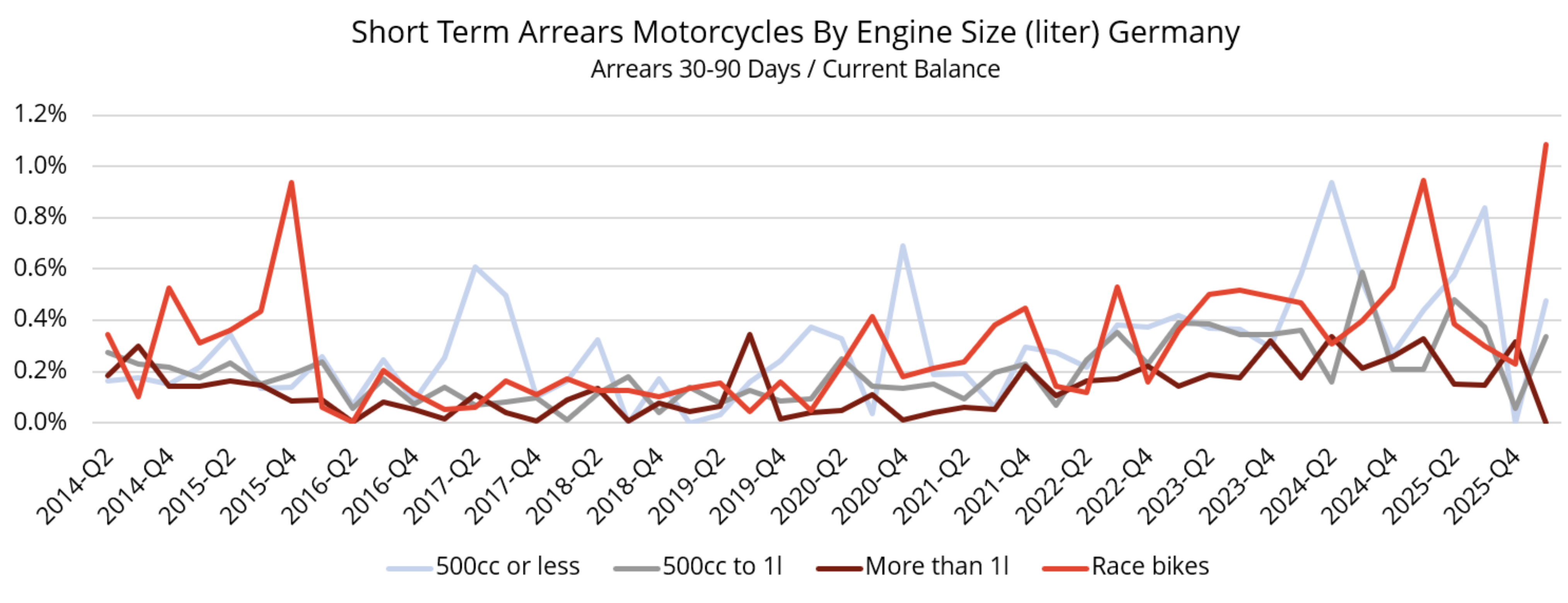
MOTORCYCLE ENGINE SIZES



PERFORMANCE (SHORT TERM ARREARS)



PERFORMANCE (SHORT TERM ARREARS)



Race bikes include the like of Aprilia RSV4, BMW M1000, Ducati Panigale, Honda CBR 1000, Kawasaki ZX-10R and other high performance sped bikes, typically with 1000cc

Q&A

THANK YOU

CONTACT US

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enquiries@eurodw.eu

PROXY DATA STUDIES

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

EUROPEAN DATAWAREHOUSE CAN HELP YOUR ORGANISATION COMPLY WITH RELEVANT PERFORMANCE REQUIREMENTS

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

L 347/62 EN Official Journal of the European Union 28.12.2017

Article 22

Requirements relating to transparency

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

PERFORMANCE TABLES

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

Date	Outstanding Balance	0-30 days	30-60 days	60-90 days	90-120 days	120-150 days	150-180 days	180+ days
31 March 2014	886,240,154	0.59%	0.12%	0.05%	0.02%	0.03%	0.02%	0.23%
30 June 2014	872,109,172	0.74%	0.27%	0.12%	0.14%	0.02%	0.02%	0.18%
30 September 2014	860,784,118	0.25%	0.10%	0.03%	0.00%	0.02%	0.00%	0.00%
31 December 2014	843,694,237	2.92%	0.23%	0.12%	0.06%	0.04%	0.02%	0.13%
31 March 2015	810,849,986	2.09%	0.21%	0.14%	0.01%	0.07%	0.03%	0.13%
30 June 2015	818,402,751	2.90%	0.28%	0.06%	0.03%	0.15%	0.04%	0.11%

PROXY DATA PROCESS

5 STAGE PROCESS DESIGNED FOR DATA SET OPTIMISATION

INITIAL COMMUNICATION

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

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

DEALS SELECTION

EDW selects a list of deals based on:

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

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

PROXY LOANS SELECTION

A subset of the underlying loans (based on the characteristics portfolio to be securitised) from the selected deals are taken as proxy loans.

Their historical performance data is compiled.

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

ADJUSTMENTS TO THE DATA

Dataset from each selected deal is scrutinised further for quality

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

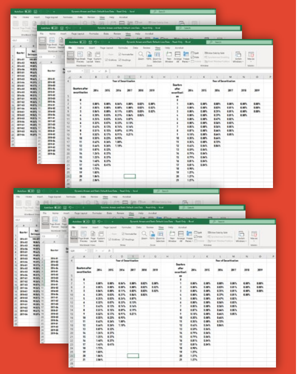
Any outlying results are investigated and discussed with the relevant EDW analyst

FINAL PERF. DATASET

First generation EDQC launched

Rules based LLD analysis implemented for all asset classes

RESULT: PROXY DATA



PROXY LOANS SELECTION AND ADJUSTMENTS TO THE DATA

BESPOKE ADJUSTMENTS

Prior to merging datasets from different deals, **each dataset is scrutinised further for data quality.** Examples include: **loan Identifier changes**, **duplicate data**, **dropped loans**, **decimal point issues**

Any idiosyncratic reporting practices of a unique deal are adjusted. Examples include: **default definition, reporting of Months in Arrears, reporting of Inactive loans**

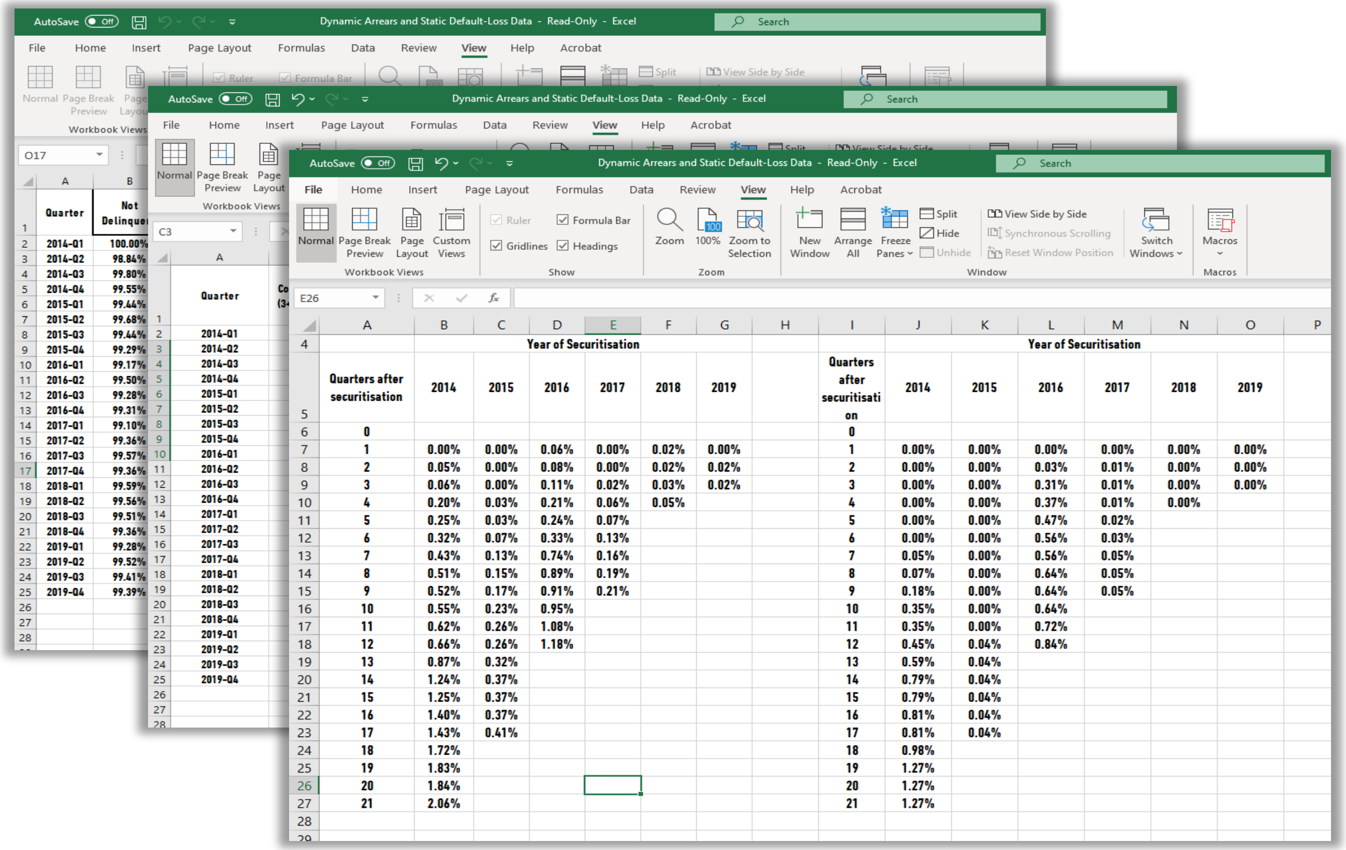
Any out of the ordinary results are investigated and discussed with the relevant Deal Analyst (e.g. high repurchases, zero defaults etc.) Investor Reports and other transaction documentation is referred to for reconciliation.

If needed, **complementing statistics are included as part of the final performance dataset.**

PROXY DATA LOAN SELECTION SUBSET SAMPLE

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

RESULT: FINAL PROXY DATA SAMPLE



Quarter	Not Delinquer
2014-Q1	100.00%
2014-Q2	98.84%
2014-Q3	99.80%
2014-Q4	99.55%
2015-Q1	99.44%
2015-Q2	99.68%
2015-Q3	99.44%
2015-Q4	99.29%
2016-Q1	99.17%
2016-Q2	99.50%
2016-Q3	99.28%
2016-Q4	99.31%
2017-Q1	99.10%
2017-Q2	99.36%
2017-Q3	99.57%
2017-Q4	99.36%
2018-Q1	99.59%
2018-Q2	99.56%
2018-Q3	99.51%
2018-Q4	99.36%
2019-Q1	99.28%
2019-Q2	99.52%
2019-Q3	99.41%
2019-Q4	99.39%

	Year of Securitisation								Year of Securitisation					
Quarters after securitisation	2014	2015	2016	2017	2018	2019		Quarters after securitisation	2014	2015	2016	2017	2018	2019
0								0						
1	0.00%	0.00%	0.06%	0.00%	0.02%	0.00%		1	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2	0.05%	0.00%	0.08%	0.00%	0.02%	0.02%		2	0.00%	0.00%	0.03%	0.01%	0.00%	0.00%
3	0.06%	0.00%	0.11%	0.02%	0.03%	0.02%		3	0.00%	0.00%	0.31%	0.01%	0.00%	0.00%
4	0.20%	0.03%	0.21%	0.06%	0.05%			4	0.00%	0.00%	0.37%	0.01%	0.00%	
5	0.25%	0.03%	0.24%	0.07%				5	0.00%	0.00%	0.47%	0.02%		
6	0.32%	0.07%	0.33%	0.13%				6	0.00%	0.00%	0.56%	0.03%		
7	0.43%	0.13%	0.74%	0.16%				7	0.05%	0.00%	0.56%	0.05%		
8	0.51%	0.15%	0.89%	0.19%				8	0.07%	0.00%	0.64%	0.05%		
9	0.52%	0.17%	0.91%	0.21%				9	0.18%	0.00%	0.64%	0.05%		
10	0.55%	0.23%	0.95%					10	0.35%	0.00%	0.64%			
11	0.62%	0.26%	1.08%					11	0.35%	0.00%	0.72%			
12	0.66%	0.26%	1.18%					12	0.45%	0.04%	0.84%			
13	0.87%	0.32%						13	0.59%	0.04%				
14	1.24%	0.37%						14	0.79%	0.04%				
15	1.25%	0.37%						15	0.79%	0.04%				
16	1.40%	0.37%						16	0.81%	0.04%				
17	1.43%	0.41%						17	0.81%	0.04%				
18	1.72%							18	0.98%					
19	1.83%							19	1.27%					
20	1.84%							20	1.27%					
21	2.06%							21	1.27%					

RESULT: FINAL PROXY DATA SAMPLE

DYNAMIC ARREARS AND DEFAULTS

Quarter	Not Delinquent	0 – 30 days	30 – 60 days	60 – 90 days	90 – 120 days	120 – 150 days	150 – 180 days	180+ days	Balance of New loans added
2014-Q1	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2014-Q2	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2014-Q3	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2014-Q4	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2015-Q1	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2015-Q2	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2015-Q3	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2015-Q4	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2016-Q1	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2016-Q2	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2016-Q3	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2016-Q4	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2017-Q1	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2017-Q2	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2017-Q3	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2017-Q4	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2018-Q1	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2018-Q2	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2018-Q3	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2018-Q4	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2019-Q1	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2019-Q2	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2019-Q3	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2019-Q4	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%

Quarter	Constant Default Rate (3+ months definition)	Constant Default Rate (Transaction definition)
2014-Q1		
2014-Q2	X.XX%	X.XX%
2014-Q3	X.XX%	X.XX%
2014-Q4	X.XX%	X.XX%
2015-Q1	X.XX%	X.XX%
2015-Q2	X.XX%	X.XX%
2015-Q3	X.XX%	X.XX%
2015-Q4	X.XX%	X.XX%
2016-Q1	X.XX%	X.XX%
2016-Q2	X.XX%	X.XX%
2016-Q3	X.XX%	X.XX%
2016-Q4	X.XX%	X.XX%
2017-Q1	X.XX%	X.XX%
2017-Q2	X.XX%	X.XX%
2017-Q3	X.XX%	X.XX%
2017-Q4	X.XX%	X.XX%
2018-Q1	X.XX%	X.XX%
2018-Q2	X.XX%	X.XX%
2018-Q3	X.XX%	X.XX%
2018-Q4	X.XX%	X.XX%
2019-Q1	X.XX%	X.XX%
2019-Q2	X.XX%	X.XX%
2019-Q3	X.XX%	X.XX%
2019-Q4	X.XX%	X.XX%

RESULT: FINAL PROXY DATA SAMPLE

STATIC DEFAULT AND LOSS

Cumulative Default Rates (3+ months definition)

Quarters after securitisation	Year of Securitisation 2014	2015	2016	2017	2018	2019
0						
1	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
3	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
4	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	
5	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	
6	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	
7	X.XX%	X.XX%	X.XX%	X.XX%		
8	X.XX%	X.XX%	X.XX%	X.XX%		
9	X.XX%	X.XX%	X.XX%	X.XX%		
10	X.XX%	X.XX%	X.XX%			
11	X.XX%	X.XX%	X.XX%			
12	X.XX%	X.XX%	X.XX%			
13	X.XX%	X.XX%				
14	X.XX%	X.XX%				
15	X.XX%	X.XX%				
16	X.XX%	X.XX%				
17	X.XX%	X.XX%				
18	X.XX%					
19	X.XX%					
20	X.XX%					
21	X.XX%					

Cumulative Default Rates (transaction definition)

Quarters after securitisation	Year of Securitisation 2014	2015	2016	2017	2018	2019
0						
1	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
3	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
4	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	
5	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	
6	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	
7	X.XX%	X.XX%	X.XX%	X.XX%		
8	X.XX%	X.XX%	X.XX%	X.XX%		
9	X.XX%	X.XX%	X.XX%	X.XX%		
10	X.XX%	X.XX%	X.XX%			
11	X.XX%	X.XX%	X.XX%			
12	X.XX%	X.XX%	X.XX%			
13	X.XX%	X.XX%				
14	X.XX%	X.XX%				
15	X.XX%	X.XX%				
16	X.XX%	X.XX%				
17	X.XX%	X.XX%				
18	X.XX%					
19	X.XX%					
20	X.XX%					
21	X.XX%					

Cumulative Loss Rates (transaction definition)

Quarters after securitisation	Year of Securitisation 2014	2015	2016	2017	2018	2019
0						
1	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
2	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
3	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%
4	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	
5	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	
6	X.XX%	X.XX%	X.XX%	X.XX%	X.XX%	
7	X.XX%	X.XX%	X.XX%	X.XX%		
8	X.XX%	X.XX%	X.XX%	X.XX%		
9	X.XX%	X.XX%	X.XX%	X.XX%		
10	X.XX%	X.XX%	X.XX%			
11	X.XX%	X.XX%	X.XX%			
12	X.XX%	X.XX%	X.XX%			
13	X.XX%	X.XX%				
14	X.XX%	X.XX%				
15	X.XX%	X.XX%				
16	X.XX%	X.XX%				
17	X.XX%	X.XX%				
18	X.XX%					
19	X.XX%					
20	X.XX%					
21	X.XX%					

DATA SAMPLE FROM AIO: SPANISH AND FRENCH AUTO LOANS