

# AUTUMN WORKSHOP SERIES

**FRANKFURT – 14 NOVEMBER 2023**



# AGENDA

## **BEGRÜßUNG UND EINFÜHRUNG**

- Marta Zurita Bermejo, DBRS Morningstar

## **GERMAN ECONOMIC OUTLOOK**

- Yesenn El-Radhi, DBRS Morningstar

## **SPAIN AS A SECURITIZATION HUB**

- Lars Schmidt-Ott, Beka Finance

## **IMPACT OF NEW SUSTAINABLE DISCLOSURE REGIME FOR STS SECURITISATIONS**

- Michael Osswald, SVI

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- Dr. Clifford Tjiok, LOANCOS

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## **SCHLUSSBEMERKUNGEN**

## **NETWORKING-EMPFANG**

# **OPENING AND WELCOME**

**MARTA ZURITA BERMEJO, DBRS MORNINGSTAR**

# **GERMAN ECONOMIC OUTLOOK**

**YESENN EL-RADHI, DBRS MORNINGSTAR**

# Economic Outlook Germany



Yesenn El-Radhi  
Vice President, Sovereign Ratings  
DBRS Morningstar  
November 2023

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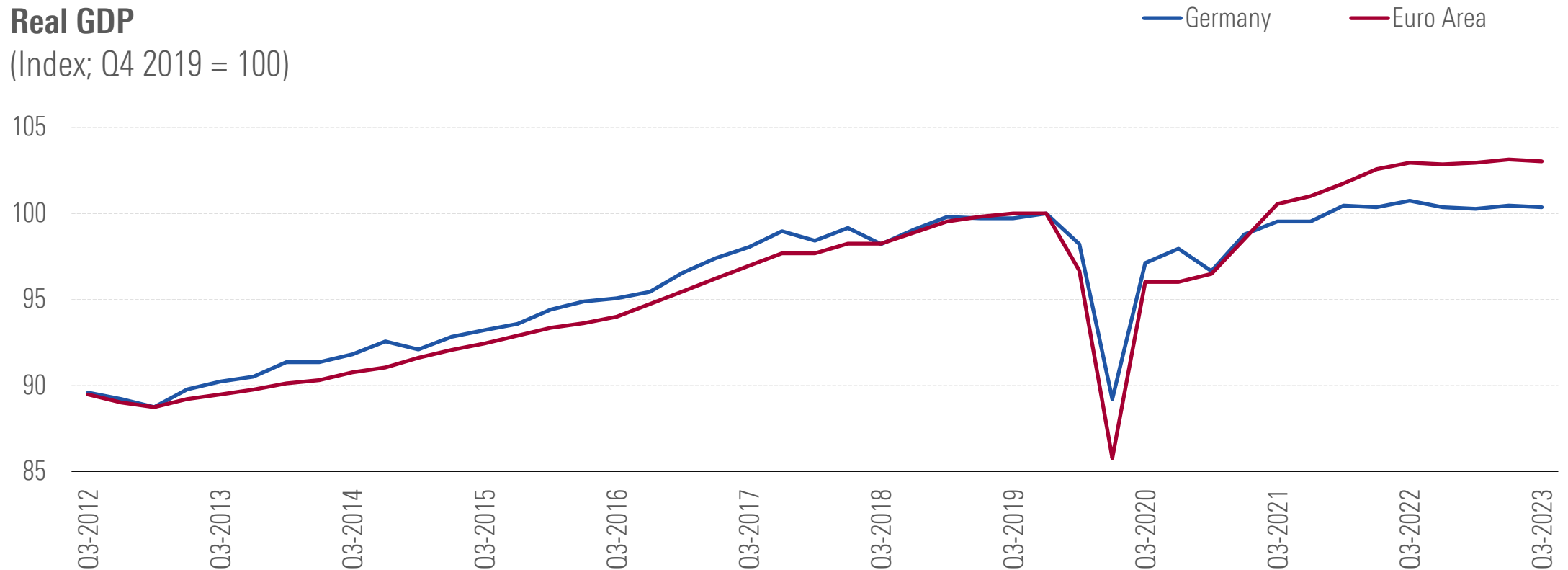
# Agenda

- Recent Economic Developments and Outlook
  - Manufacturing
  - Construction
  - Consumer Spending
- Structural Growth Challenges
- Summary

# Weak economic growth in Germany over the past two years driven by cyclical and structural factors

## Real GDP

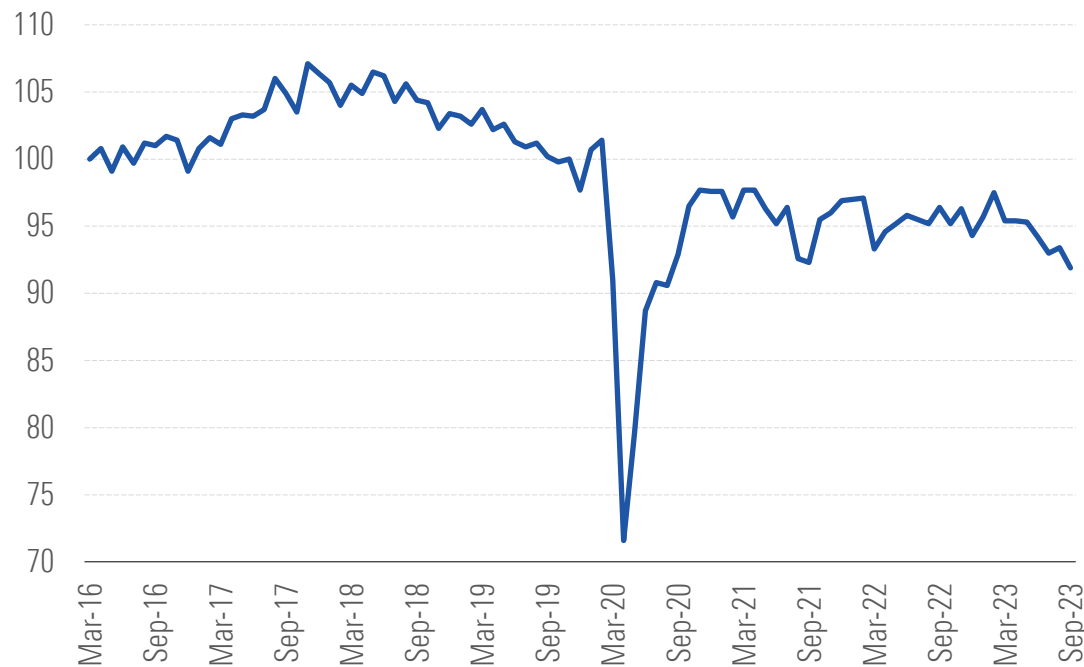
(Index; Q4 2019 = 100)



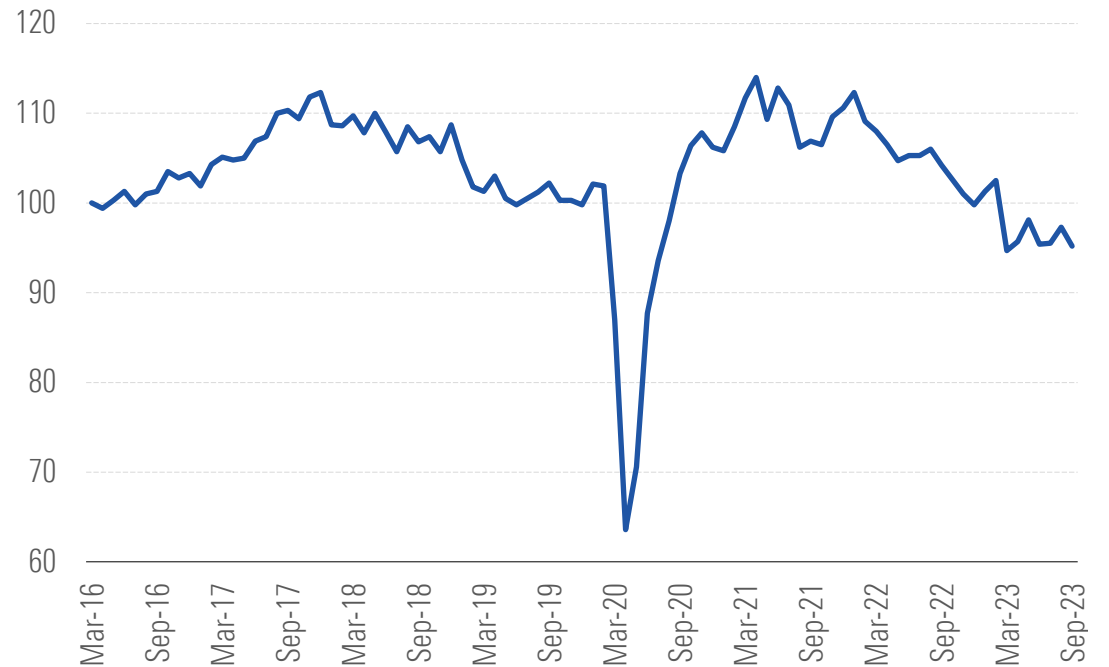
Source: Eurostat. Last observation: Q3 2023.

# Industrial production suffered from weakening domestic and external demand and industry-specific shocks

**Industrial Production**  
(real; 2015=100)



**Manufacturing New Orders**  
(real; 2015=100)

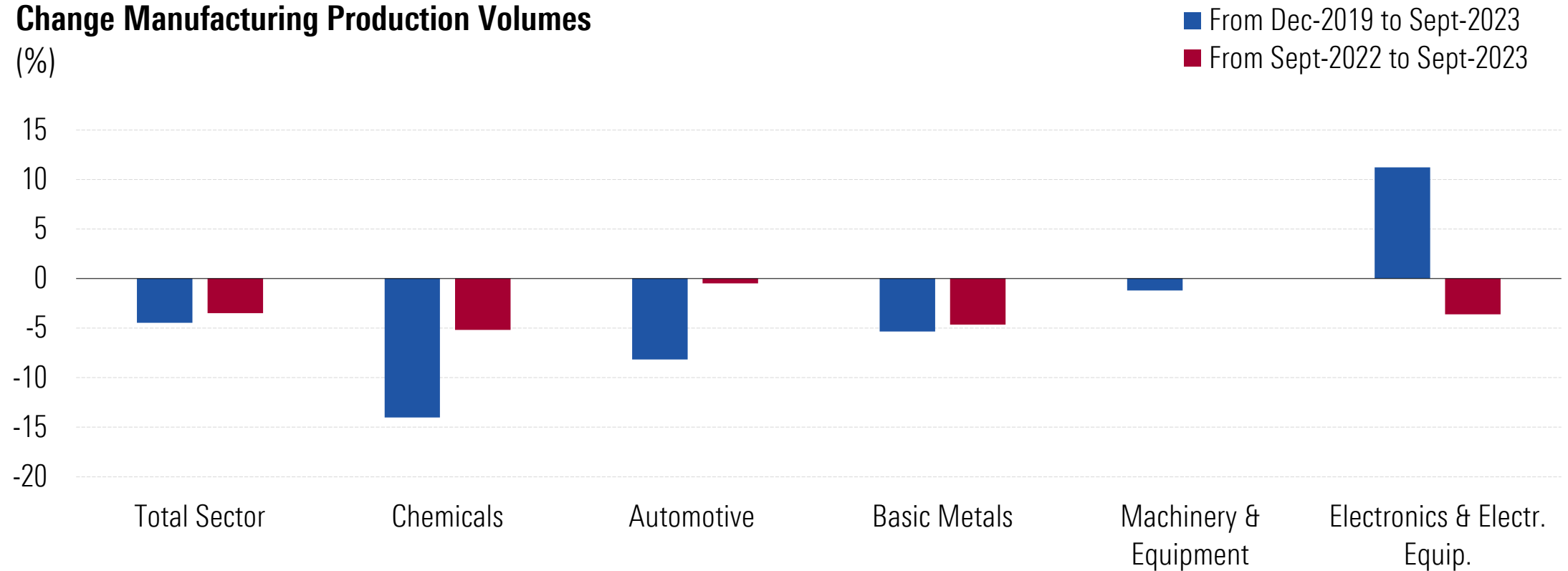


Source: Federal Statistical Office, Bundesbank. Last observations: September 2023. New orders exclude major orders.



# Recent developments and outlooks differ across industries

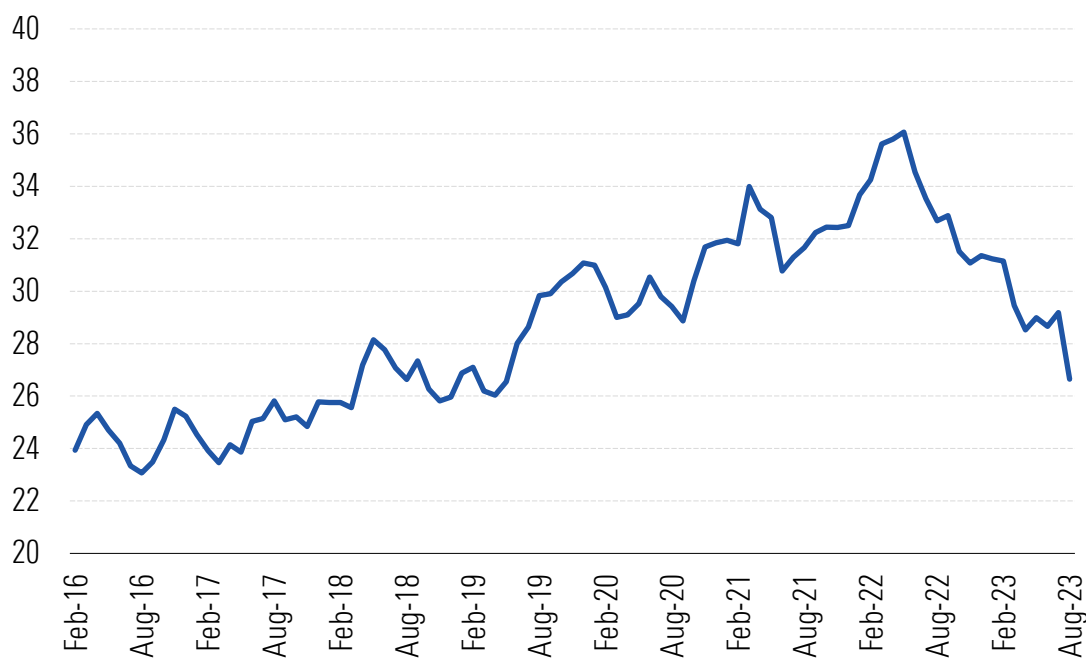
## Change Manufacturing Production Volumes (%)



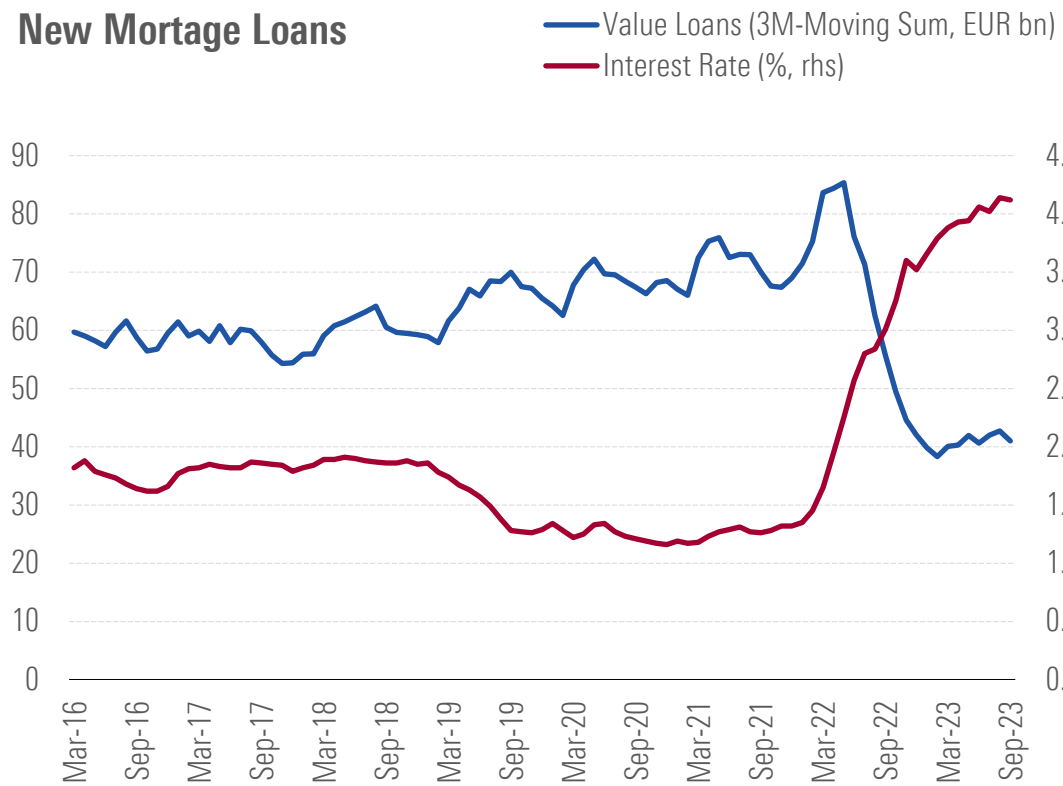
Source: Federal Statistical Office.

# The short-term outlook for construction is bleak

**Total Building Permits Granted**  
(3-Month Moving Total, EUR bn, SA)



**New Mortgage Loans**

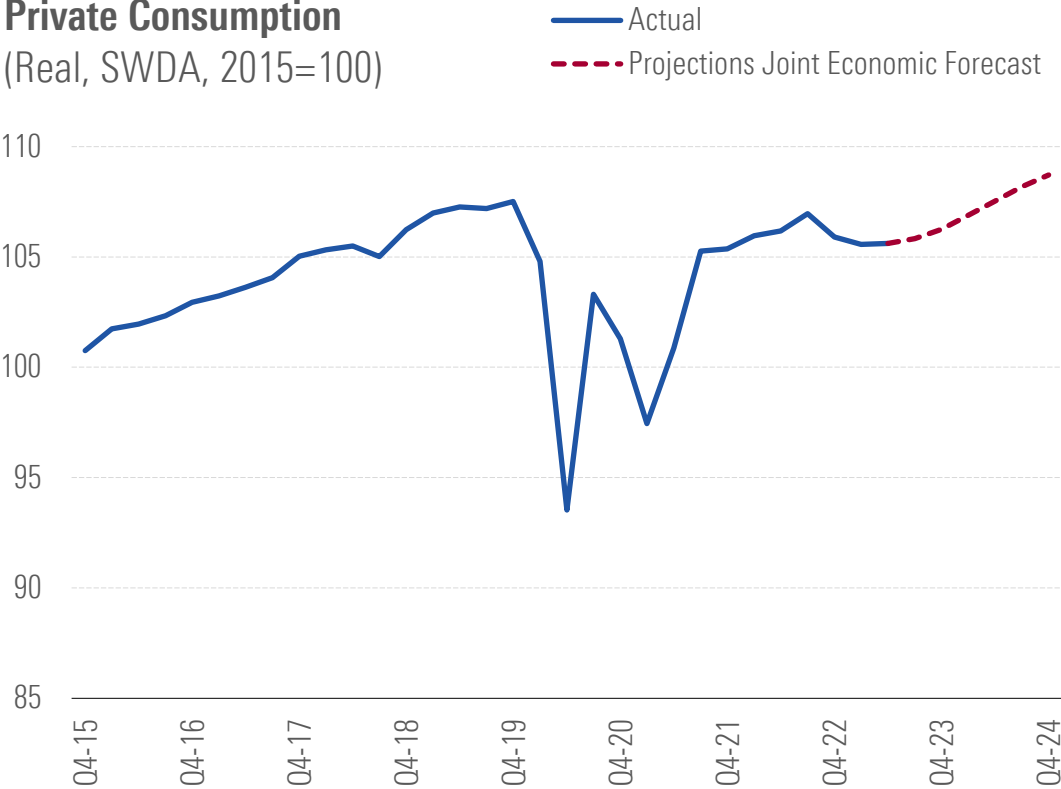


Source: Bundesbank. Last observations: August 2023 (building permits) & September 2023 (value & interest rate new mortgages).

# Private consumption is projected to be bolstered by catch-up in real wages

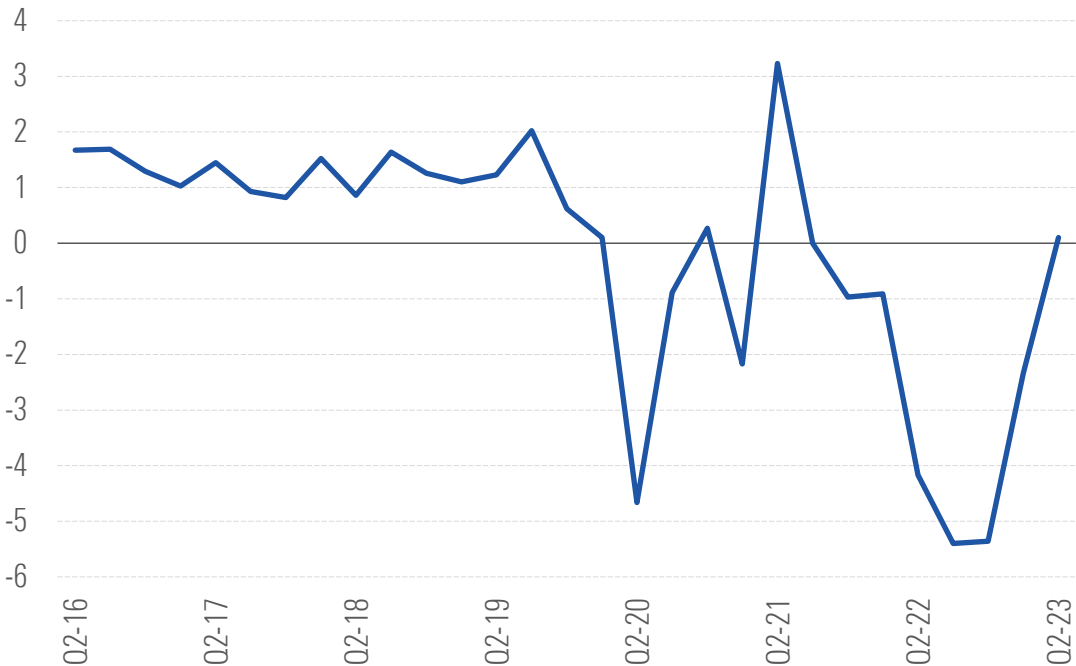
## Private Consumption

(Real, SWDA, 2015=100)



## Real Wage Index - Annual Change

(%)



Source: Federal Statistical Office, Joint Economic Forecast Autumn 2023. Last observations: Q2 2023 (actual private consumption and real wages)

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# Structural Growth Challenges of the German Economy

- Demographic pressures
- Energy supply and prices
- Decarbonization energy-intensive manufacturing (e.g. steel)
- Transformation global automotive industry towards electric vehicles
- Modernization needs of public infrastructure
- Streamlining (& digitizing) government approval procedures

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## Economic outlook: Cyclical headwinds will gradually fade but structural challenges remain large

### Forecasts Real GDP Growth in Germany (%)

	<u>2023</u>	<u>2024</u>	<u>2025</u>
German Council of Economic Experts (Nov 2023)	-0.4	0.7	na
IMF (October 2023)	-0.5	0.9	2.0
Joint Economic Forecast Think Tanks (Sep 2023)	-0.6	1.3	1.5

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# Economic Outlook Germany: Factors to Watch

- Extent of projected rebound in consumer spending
- Economic developments in trading partner economies
- Interest rates euro area
- Geopolitical risks (Ukraine, Middle East, East Asia)
- Global commodity prices

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# **SPAIN AS A SECURITIZATION HUB**

**LARS SCHMIDT-OTT, BEKA FINANCE**



**EUROPEAN**  
DATAWAREHOUSE

## Vorteile einer Verbriefung in Spanien

Frankfurt, den 14.11.2023

# Inhaltsverzeichnis

- 1 Vorstellung
- 2 Verbriefungsmarkt Spanien
- 3 Anwendungsbeispiele
- 3 Vorteile einer Spanischen Verbriefung

# Wer ist **bekafinance** ?



Beka Finance ist die ehemalige Investmenbank von Bankia, der Vereinigung 7 regionaler Sparkassen (Cajas).

Finanzierung des Mittelstandes, die Refinanzierung und das Treasury der Sparkassen sind die DNA der Firma, vergleichbar mit einer Landesbank in Deutschland.

**1989**

YEAR OF INCORPORATION

**+ 200**

PROFESSIONALS

**+ €25.5 Bn**

Assets under management

**+ €175 Bn**

FINANCED

## Eine Auswahl unser Verbriefungskunden:

### Banken



### Nichtbanken



# Inhaltsverzeichnis

- 1 Vorstellung
- 2 **Verbriefungsmarkt Spanien**
- 3 Anwendungsbeispiele
- 3 Vorteile einer Spanischen Verbriefung

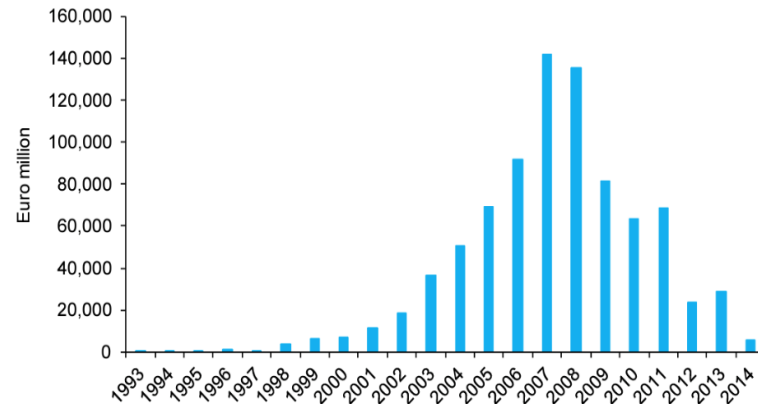
# Wirtschaftliche Treiber des Verbriefungsmarktes

Vor und in der Krise der € -Finanzierungsbedarf einer diversifizierten Spanischen Bankenlandschaft

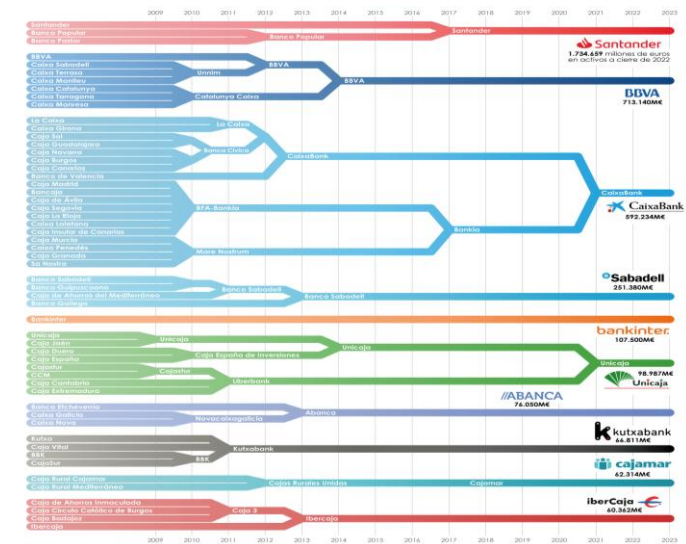
Mit der Krise weniger Bedarf des Bankensektors nach 2009, auch aufgrund einer brutalen Konsolidierung und QE

Exhibit 1

Trend in securitised bond issuance in Spain



Sources: CNMV, AFI.



Aber seit 2015 mit einer neuen **Regulierung 'Law 5/2015, on the Promotion of Business Financing'** auch mit einer vermehrten Nutzung der Verbriefung von Nichtbanken, hauptsächlich durch international Fonds die NPL von den Banken nach der Krise gekauft haben (in 2022 laut EBA € 102 bn) und eine effiziente Form von Finanzierung bei internationalen Banken gesucht haben.

Heute zB sind neue Strukturen auch wichtig um z.B. die Wirtschaft weiter auf erneuerbare Energiend umzustellen – Spanien hat hier wesentliche Fortschritte gemacht, aber viele kleinere Projekte finden nur schwer Finanzierung.

## Situation Heute

- Das historisch hohe Transaktionsvolumen der Banken hat in Spanien erlaubt eine effiziente Verbriefungsmaschine unter der Aufsicht des Regulators (CNMV) zu etablieren, welche auch Europa's Anforderungen erfüllt
- Die Figur des Regulierten Securitisation Manager (Gestora) erlaubt einen Service aus einer Hand, welche in anderen Jurisdiktionen in der Regel durch mehrere Parteien angeboten wird, ie. Master Servicer, Trustee, Cash Manager, Reporting Entity
- Die Prozesse sind integriert und effiziente IT System bestehen bereits, welche es erlauben die Daten direkt beim Originator abzugreifen, aber das Servicing komplett vor Ort zu belassen (*Siehe Fallstudie einer Deutschen Bank*)
- So betreut bis heute Beka Securitization ca. 200 Verbriefungen in verschiedenen Assetklassen ueber alle Subprozesse: Betreuung des Originators, IT Schnittstellen, Datenoptimierung, Operative Prozesse, Rechtliche Strukturen, Finanzierungsstruktur, Rating Agenturen, Bewertungen, Exekution und Zahlungsverkehr, Clearing und Listing, Investoren Reporting und Betreuung
- Es gibt also in Spanien mehr als eine handvoll von etablierten Anbietern die Verbriefungstransaktionen ab einem Volumen von min. € 100m zu jaehrlichen 'all-inclusive' Kosten von 20 bps oder weniger betreuen koennen
- Das Angebot ist fuer Banken und Nichtbanken zugaenglich

# FT (Fondo de Titulizacion): Grundlagen (I)

- Ein FT (spanische SSPE) ist ein Unternehmen (Fonds) ohne Rechtspersönlichkeit, um die Investition in verbriefte Vermögenswerte zu kanalisieren, die von der spanischen Wertpapiermarktkommission („Comisión Nacional del Mercado de Valores oder CNMV“) überwacht und reguliert werden.
- Es handelt sich um Anlagevehikel, die an unterschiedliche Bedürfnisse angepasst werden können. Fuer Unitranche-Strukturen gelten die EU Homogenitaetsregeln nicht
- FTs unterliegen weder einem Konsolidierungsrisiko mit dem Originator noch einem Governance-Risiko, da sie von einem regulierten Securitization Manager (Sociedad Gestora oder „ManCo“) verwaltet werden, dh. weder Substanz noch Spanische Direktoren aus steuerlicher oder regulatorischer Sicht notwendig, anders als in anderen Jurisdiktionen
- Keine speziellen Anforderungen an den Originator, Multi-Originator Strukturen sind moeglich
- Mehrere Kompartemente sind moeglich (ohne Kontaminationsrisiko)
- Gesetzlich ist der Securitization Manager auch zur Verwaltung des Vermögens (Assets) verpflichtet. In der Regel wird diese jedoch an den Originator (Bank oder Asset Manager) zurueck delegiert, deshalb ist die Substanz des Securitization Managers in Spanien fuer die Struktur steuerlich ausreichend
- Die Dokumentation kann komplett in Englisch gehalten werden, nur die ‘Escritura’ (notariell beglaubigte Vertragsurkunde zur Gruendung) des FTs muss Spanisch gehalten sein



## FT : Grundlagen (II)

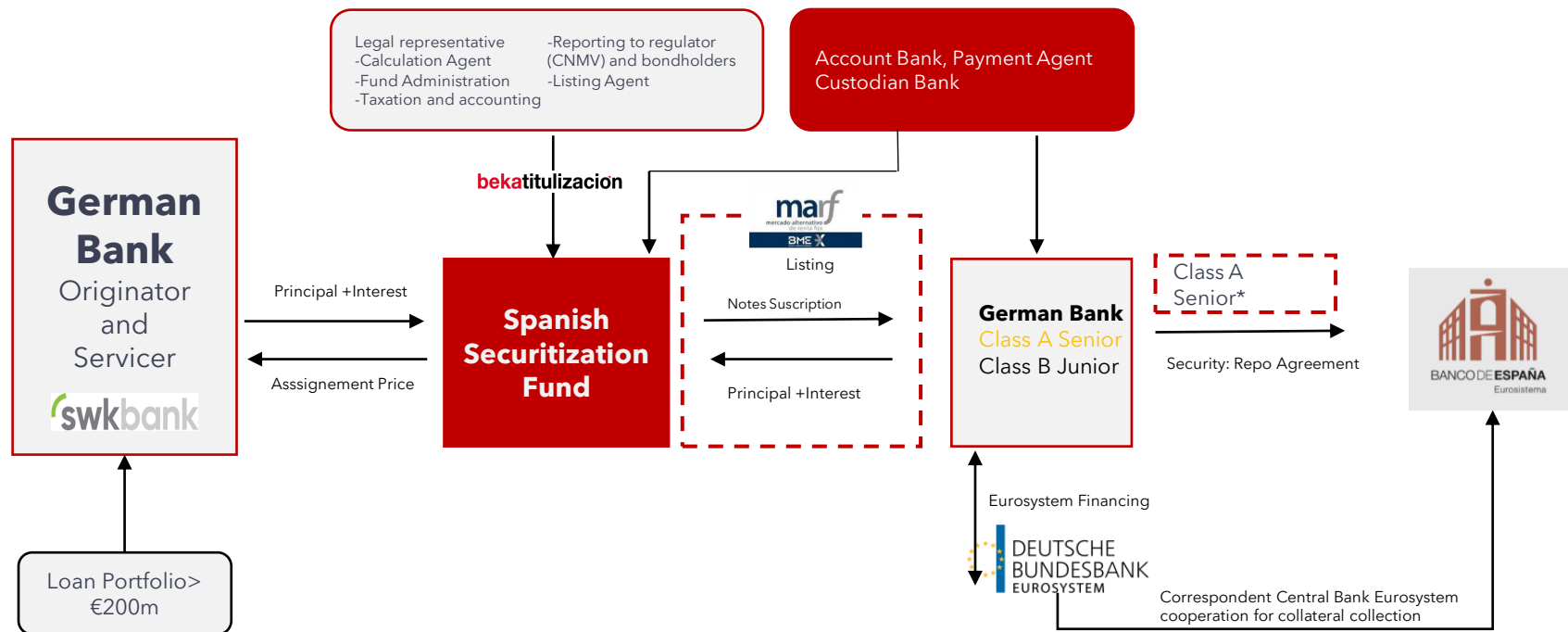
- True Sale: Die Übertragung wird vertraglich formalisiert. Dabei kann es sich um die Übertragung des Rechtstitels oder eine andere Form der Risikoübertragung oder Abtretung des wirtschaftlichen Interesses an der zugrunde liegenden Risikoposition handeln, mit derselben Rechtswirkung und Durchsetzbarkeit nach geltendem Recht.
- Synthetische Strukturen: die Risikoübertragung erfolgt durch den Einsatz von Kreditderivaten oder Finanzgarantien und die verbrieften Forderungen verbleiben beim Originator
- Die Verbriefungsverordnung schreibt (i) einen Risikobehalt (direkter Ansatz – Art. 6-) für Originatoren, Sponsoren und ursprüngliche Kreditgeber vor und (ii) einen indirekten Ansatz – Due Diligence – für regulierte Anleger vor (Artikel 5.1(d)) -Der bisherige Mindestrisikoselbstbehalt beträgt weiterhin 5 %.
- Transaktionen ohne Tranchen gelten formal nicht als „Verbriefungen“ (Artikel 4.61 CRR) und unterliegen daher nicht den Vorschriften zum Risikoselbstbehalt.
- Assets: Alle legitimen und bestehenden Kreditrechte des Übertragenden (einschließlich Hypothekenscheine (PHs, CTHs), Unterbeteiligungen und auf den Primärmärkten ausgegebene Wertpapiere), zukünftige Kreditansprüche, sofern sie durch zugrunde liegende Vereinbarungen und messbare Einnahmen gestützt sind (vorbehaltlich aller anwendbaren Gesetze, dh. grenzüberschreitende Steuerfolgen sind abzuklären) (Unbefristete FTs können das Portfolio an Vermögenswerten erweitern oder ändern (revolvierende Zeiträume, Lagerstrukturen und der Handel mit Vermögenswerten sind zulässig)
- Verbindlichkeiten: bis zu 100 % Verbindlichkeiten möglich: von Anlegern gezeichnete, notierte (an geregelten Märkten oder MTFs) oder privat ausgegebene Schuldtitel



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- 3 Vorteile einer Spanischen Verbriefung

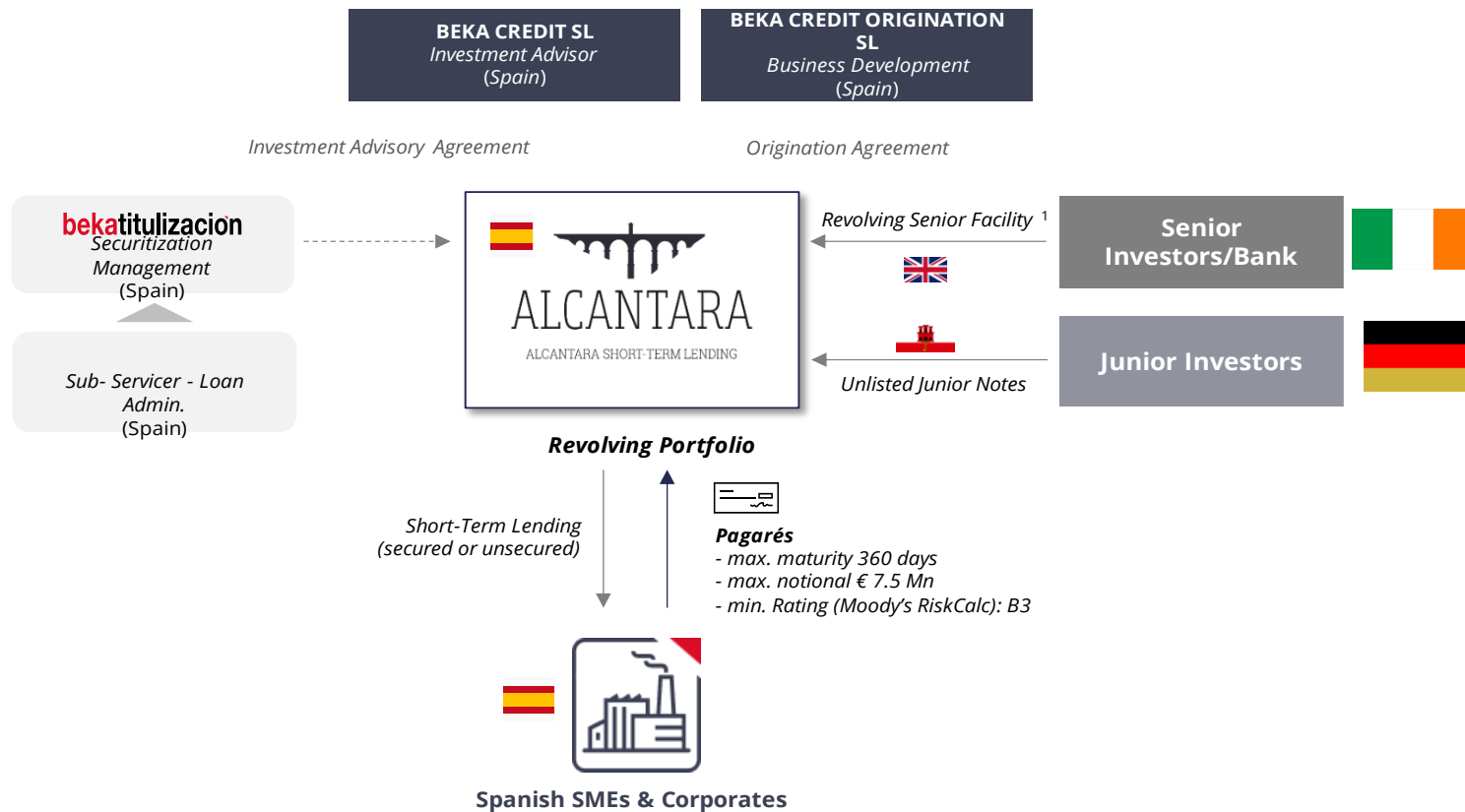
# 1. Zugang zur Refinanzierung der EZB fuer eine Bank



\* Rated at least A- by two eligible Rating Agencies

## 2: Kombination von UK Leverage mit EU Assets und Equity

SPV fuer Wechselfinanzierungen



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# Vorteile des Spanischen FT

1. Alle Arten von Assets aus unterschiedlichen Jurisdiktionen
2. Asset management kann weiter vom Originator gemacht werden. Data Protection Trustee nicht noetig
3. Perfektes Ring Fencing: FTs haben keine rechtliche Persoenlichkeitsklausel und somit kein Insolvenzrisiko und muessen keine Security ueber die Assets erstellen
4. Eurosystem: Bank of Spain agiert als Korrespondent National Central Bank fuer die Sicherheiten (repo agreement) fuer andere Nationalbanken
5. Die Depositbank, der Zahlungsagent und der Securitization Manager sind mit der Nationalbank verbunden und abgestimmt
6. Strukturell keine Notwendigkeit von Covenants, sondern nur Eligibilitaet und Credit Enhancement ausschlaggebend, (d.h. overcollateralisation, tranching, excess spread, reserve accounts)
7. Flexibel: SRT und Regulatory Capital, Distribution fuer Eurosystem Operationen, Cash oder Synthetic, Term oder ABCP.
8. FT koennen offen (mit Revolving Period) oder geschlossen strukturiert werden , mit separaten Compartments
9. Privat oder oeffentlich, mit oder ohne Rating
10. Steuerlich effizient: Keine Withholding Tax fuer gelistete Transaktionen oder fuer EU Investoren (Beneficial Owner), keine Steuer fuer den Transfer von Assets oder die Administration des FT oder CIT
11. Kosteneffizient: guenstiger als andere Jurisdiktionen (& mehr Sonne und besseres Essen)
12. Schlanker und schneller Prozess mit der Aufsicht

**Danke fuer Ihr Interesse!**



&



**bekacredit**

# **IMPACT OF NEW SUSTAINABLE DISCLOSURE REGIME FOR STS SECURITISATIONS**

**MICHAEL OSSWALD, SVI**



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

# Impact of New Sustainable Disclosure Regime for STS Securitisations

Michael Osswald

STS Verification International GmbH ("SVI")

European DataWarehouse German Workshop, 14 November 2023





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

## Simple, Transparent & Standardised (“STS”) Securitisations

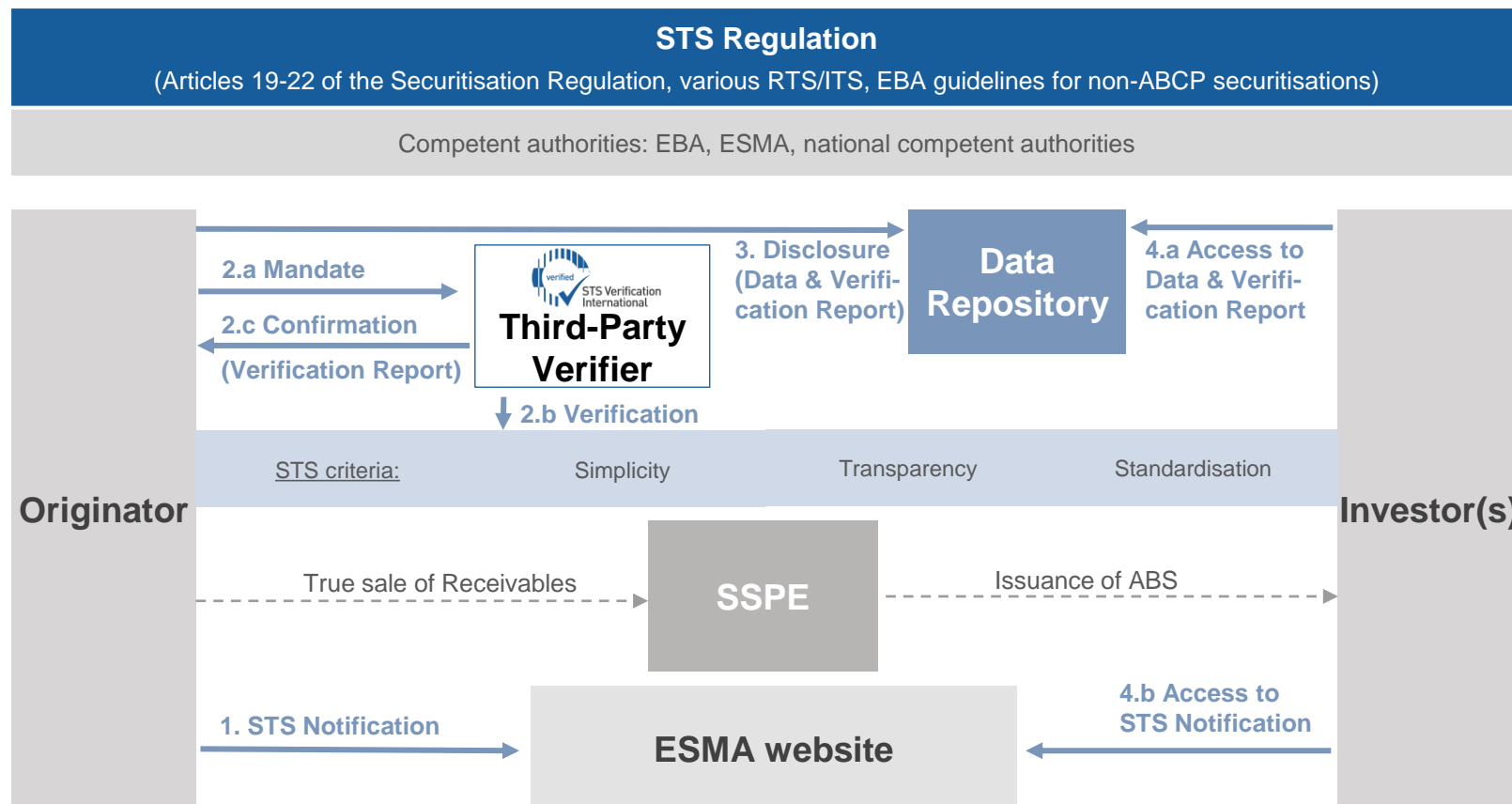
- As part of the European securitization framework, the STS regime has been established in 2019 as a first-class capital market segment with strict and uniform regulation
- The STS label offers access to the widest investor base possible
- Market standard for public securitization, widely used by private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



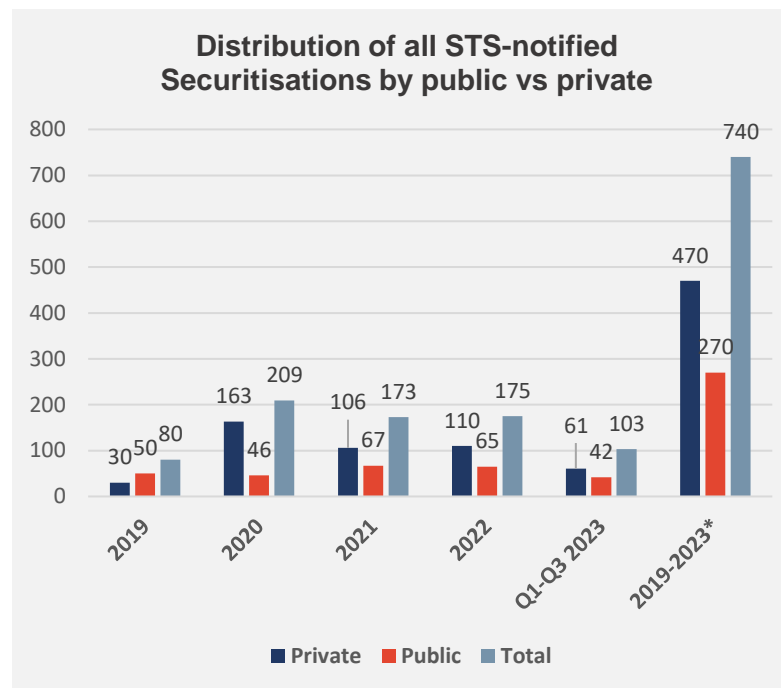
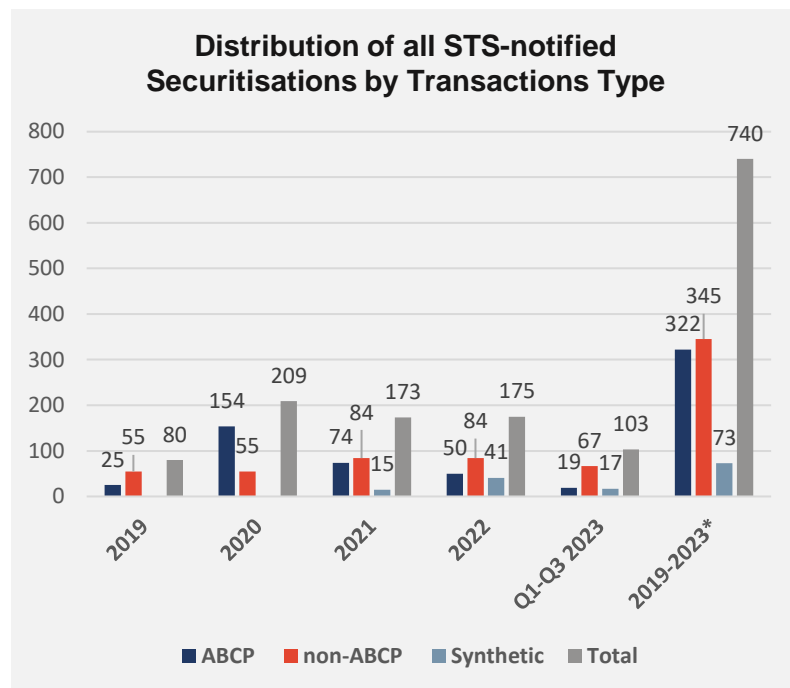
## The Role of the Third-Party Verifier (“TPV”)

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

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



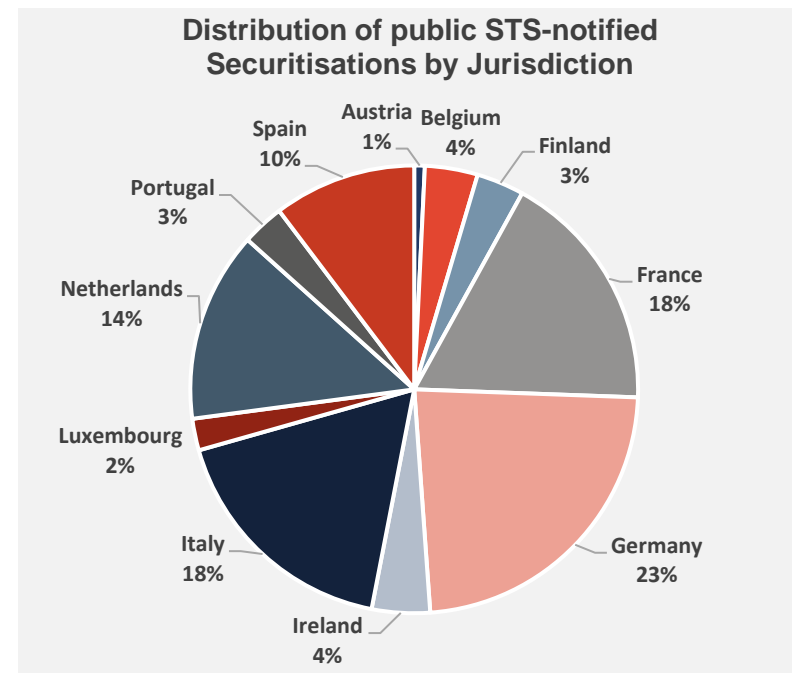
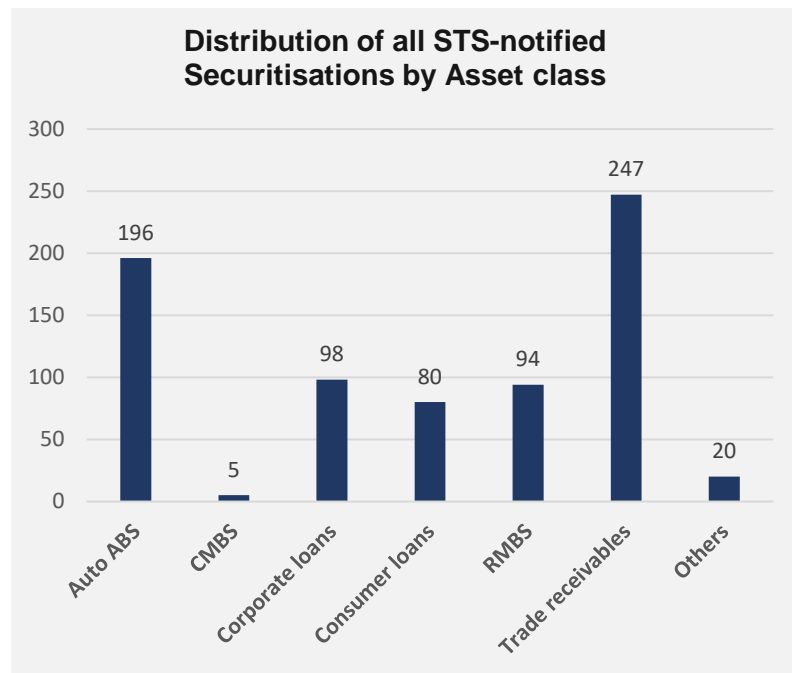
# DEVELOPMENT OF THE MARKET FOR STS TRANSACTIONS (2019 - Q3 2023)



\*Period 1.1.2019 – 30.09.2023; Source: ESMA Website, SVI

- Since the introduction of the STS segment, 740 securitisations have been notified as STS-compliant (345 non-ABCP vs. 322 ABCP vs. 73 Synthetic, 270 public vs. 470 private transactions)
- STS-compliant transactions can be notified to ESMA as either “public” or “private” transactions, with resulting vastly different level of disclosure

## DEVELOPMENT OF THE MARKET FOR STS TRANSACTIONS (2019-2022) (CONTINUED)



Period 1.1.2019 – 30.09.2023; Source: ESMA Website, SVI

- The German securitization market is characterized by a broad diversification between transaction types (Non-ABCP, ABCP and synthetic securitisations) and the co-existence of public and private transactions
- For the German market, the asset class focus is on auto loan & leases, trade receivables and equipment leases, with RMBS transactions executed mostly on a retained basis

## SELECTED STS CRITERIA

### Article 20 (8) SECR: Homogeneity

*„The securitisation shall be backed by a pool of underlying exposures that are homogeneous in terms of asset type, taking into account the specific characteristics relating to the cash flows of the asset type [...].“*

**RTS on Homogeneity** (Commission Delegated Regulation (EU) 2019/1851)

Subcriterion	Check	Verification Method
<b>Asset Type</b>	Do the underlying exposures fall into one of the asset types according to Art. 1 of the Commission Delegated Regulation (EU) 2019/1851 on Homogeneity?	Transaction Documentation (e.g. RPA, Eligibility Criteria)
<b>Underwriting &amp; Servicing Standards</b>	Were the underlying exposures originated in accordance with consistent underwriting standards and serviced using consistent servicing standards?	a) Due Diligence b) Underwriting and Servicing Policy
<b>Homogeneity Factor</b>	Which homogeneity factor applies to the underlying exposures? (e.g. jurisdiction, type of obligor)	a) Transaction Documentation (e.g. RPA, Eligibility Criteria) b) AuP Report (e.g. check of jurisdiction based on the sample)

## SELECTED STS CRITERIA (CONTINUED)

### Article 20 (13) SECR: Repayment of the securitisation position not predominantly dependent on the sale of assets securing the underlying exposures

*„The repayment of the holders of the securitisation positions shall not have been structured to depend predominantly on the sale of assets securing the underlying exposures. [...]”*

**EBA Guidelines for non-ABCP securitisations, Items No. 48 to 50**



Subcriterion	Check	Verification Method
<b>Source of repayment</b>	Normal sources include the lease instalments or the principal portion of a loan instalment	Transaction Documentation (e.g. RPA, priority of payments)
<b>Thresholds</b>	<ul style="list-style-type: none"> <li>a) Principal balance of the underlying exposures that depend on the sale of the asset <math>\leq</math> 50% of all securitisation positions?</li> <li>b) No material concentrations of the maturities of the above-mentioned exposures?</li> <li>c) Max. 2% single obligor concentration for the above-mentioned exposures</li> </ul>	Transaction Documentation Data Due Diligence
<b>Exception</b>	If RV guarantee or repurchase obligation in place to protect the SPV against any RV risk from eligible party	Transaction Documentation (e.g. Put option agreement)

# SUSTAINABLE DISCLOSURE REGIME FOR STS SECURITISATIONS: ENVIRONMENTAL PERFORMANCE DATA

## Article 22 (4) Subparagraph 1 SECR: Publication of information on the environmental performance of the assets financed by such underlying exposures

*„In the case of a securitisation where the underlying exposures are residential loans or auto loans or leases, the originator and sponsor shall publish the available information related to the environmental performance of the assets financed by such residential loans or auto loans or leases [...].”*

### EBA Guidelines for non-ABCP securitisations, Item 84



- Effective from **January 2019** as part of the Initial Securitisation Regulation
- Relates to **residential mortgage loans** and **Auto loans & leases**
- **Proviso** that such information is available to the originator and captured in its IT systems
- **Market acceptance:**
  - Initially slow acceptance by RMBS and Auto ABS issuers due to lack of availability of environmental performance data and uncertainty about their correctness
  - More widespread use for recent RMBS and Auto ABS transactions
- **Format:**
  - Part of the loan-level data required under Article 7 SECR (ESMA Templates): Energy Performance Certificate Value (A to G) and Certificate Provider Name

# SUSTAINABLE DISCLOSURE REGIME FOR STS SECURITISATIONS: PRINCIPAL ADVERSE IMPACTS

## Article 22 (4) Subparagraph 2 SECR: Publication of information on the Principal Adverse Impacts (“PAIs”) on sustainability factors:

*„By way of derogation from the first subparagraph, originators may, from 1 June 2021, decide to publish the available information related to the principal adverse impacts of the assets financed by underlying exposures on sustainability factors.*

**RTS on sustainability indicators in relation to adverse impacts on the climate and other environmental, social and governance-related adverse impacts** (Final Report, May 2023, i.e. **not yet effective**)

- Effective from **April 2021** as part of the Amended Securitisation Regulation
- Alignment with the sustainability-related disclosures in financial services under the **Sustainable Finance Disclosure Regulation** (SFDR) that imposes mandatory ESG disclosure obligations on asset managers and many other financial market participants
- Publication of **information on PAIs on sustainability factors** of the assets financed by the underlying exposures of the securitisation
  - Certain climate and other environmental indicators: share of underlying exposures secured by vehicles that exceed a certain CO2 emission level, are non-compliant with Euro 6 emission limits and have a low recyclability percentage
  - Certain social, human rights, anti-corruption and anti-bribery indicators: rate of work accidents, lack of supplier code of conduct, excessive CEO pay ratio and incidents of child labour



## SUSTAINABLE DISCLOSURE REGIME FOR STS SECURITISATIONS: PRINCIPAL ADVERSE IMPACTS (CONTINUED)

- Information to be provided in respect of the **originator** of the securitisation:
  - How are PAIs on sustainability factors taken into account in the originator's credit granting criteria?
- Information requirements in respect of the **securitisation** itself:
  - How are PAIs on sustainability factors taken into account in the selection of the securitised portfolio?
  - Are there any tests, events or triggers in relation to the PAIs?
  - Clear reference where in the prospectus investors would find information on the PAIs in the context of the pool selection and any tests, events or triggers
- **Format:**
  - Part of the loan-level data in the form of the ESMA templates under Article 7 SECR
- **Practical importance** of the publication of information on the PAIs on sustainability factors:
  - Such reporting would provide the relevant information to investors to allow them to fulfill their ESG reporting requirements



# **BACK-UP SERVICING: SUPPORTING OPERATING PLATFORMS AND SUSTAINABLE FINANCING PROGRAMS TO GET CAPITAL MARKETABILITY**

**DR. CLIFFORD TJIOK, LOANCOS**



# BACK-UP SERVICING: SUPPORTING OPERATING PLATFORMS AND SUSTAINABLE FINANCING PROGRAMS TO GET CAPITAL MARKETABILITY

How to get Money  
back for Lenders

Loans | Non Performing Loans | Structured Finance Products | Real Estate

**Dr. Clifford Tjiok**, CCO & Management Board Member  
European DataWarehouse, Frankfurt am Main, 14 November, 2023

**Note:**

All views and opinions expressed in this presentation are the personal views and opinions of the presenter



**Many years of expertise regarding real estate products and related financial products**

**Market leader for third party Mortgage Loan Servicing in Germany**

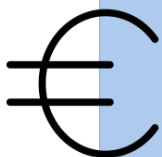
**Market leader for third party Ground Lease Servicing in Germany**



**>100  
Specialist staff**



**Offices in:  
Frankfurt, Essen and Eschborn**



**>20 bn. EUR  
Assets under Management  
since 1999**



**300,000  
Mortgage loans  
in Servicing since 1999**



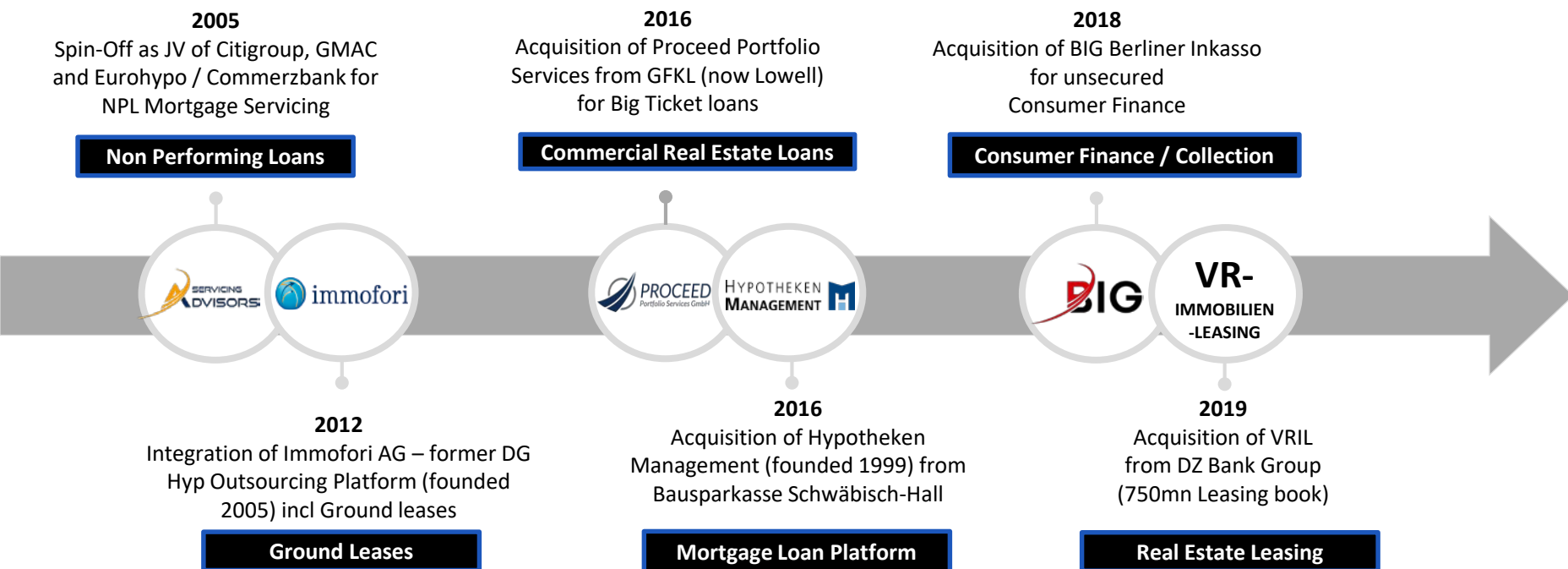
**Groundleases &  
Real Estate Leasing  
as alternative Asset classes**

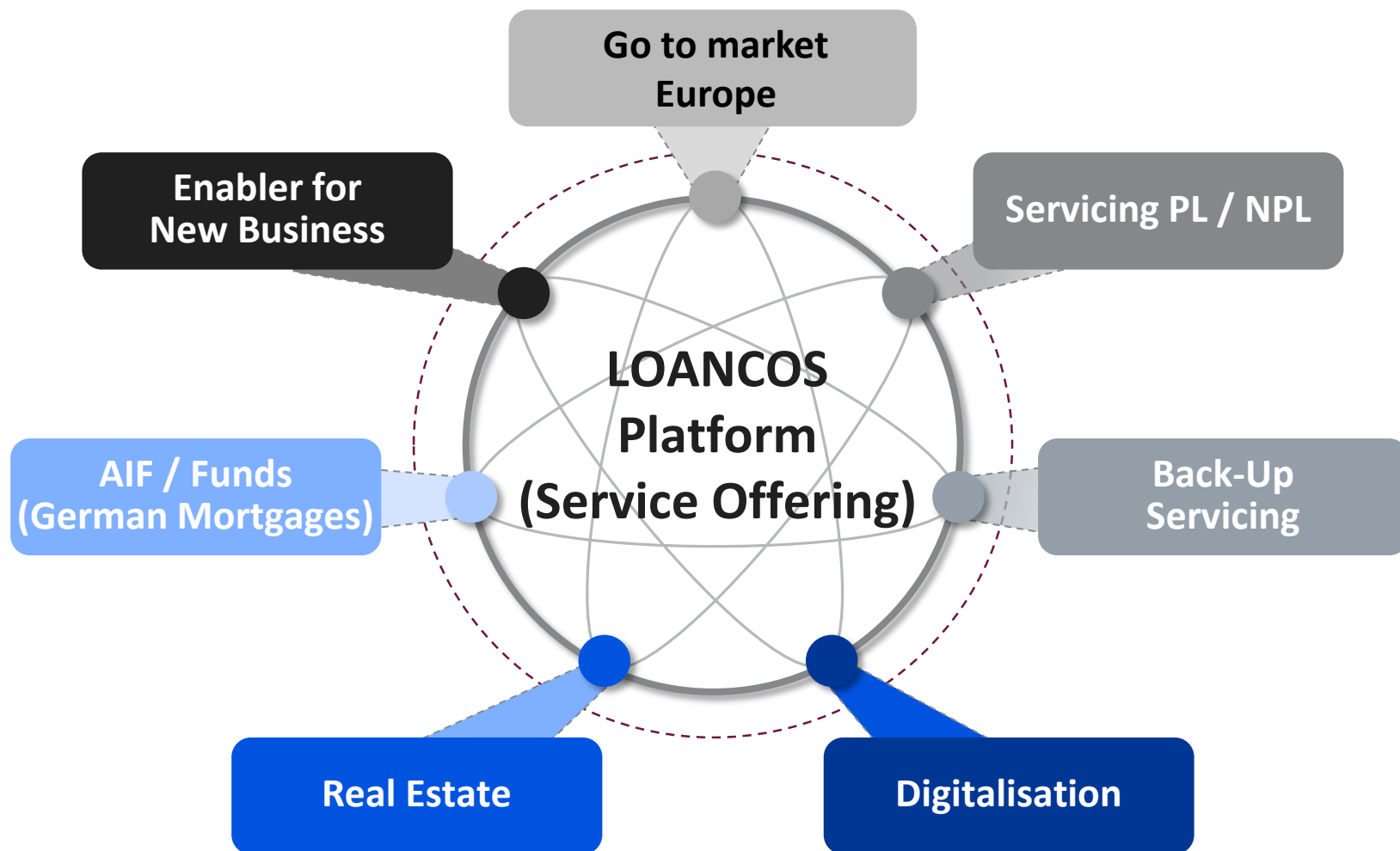


**50,000  
Properties  
sold/resolved since 2005**



### Comprehensive expert knowledge of LOANCOS Group







## Why Back-Up Servicing?





### Back-Up Servicing for Financing programs

- Arrangement where Third-party servicer is appointed to step in and take over the servicing of a loan or other financial asset if the primary servicer becomes unable to fulfill its obligations
- Back-Up Servicer is ready to step in and ensure that the loans continue to be serviced according to the terms of the financing agreement
- Purpose of Back-Up Servicing is to mitigate the risk of disruption in loan servicing
- Lenders can be assured that their investments will continue to be properly serviced even in case of unexpected events affecting the primary servicer

 **Back-Up Servicing is at the heart of getting the Money back for Lenders**



### **Back-Up Servicing is at the heart of getting the Money back for Lenders**

- Back-Up Servicer to step in and manage proper Run-down of all existing businesses and ensure that any financing extended to the platform by Lenders is fully repaid
- Effectively working like an insurance policy:
  - Being looked at favorably by Rating agencies
  - Reflected in Rating report for Capital Markets and investor community
- “Back-Up Service Facilitator”: Will look for a Back-Up Servicer after an activation event is triggered



**Transactions having an actual Back-Up Servicer in place are considered to be much stronger than having only a Back-Up Servicing facilitator**



## How to do Back-Up Servicing



### **Contribute to full Financeability on the Capital Markets**

#### **Back-Up Servicing caters specifically for the needs of Debt Financers of**

- Securitisation structures
- Embedded Financing programs
- Granular Leasing structures
- Contracting structures
- Sustainable Financing programs
- All other platforms that manage forward flows with Third-party financing

#### **Key services (post activation) include**

- Cash management for entire pool of outstandings
- Stabilisation of all incoming expected payments
- Ensure controlled, insolvency-proof and managed Run-down



### Between Hot and Cold Back-Up Servicing

#### Hot Stand-By

- Entails a very short time for getting activated
- Comes at a significant cost

#### Warm Stand-By

- Equal to a medium time for getting activated
- Allows to taking a more practical and cost-efficient view

#### Cold Stand-By

- Allows for a longer time for getting activated
- Cost-efficient but long activation period may already lead to missed payments



**There is always a trade-off: The shorter the time for taking over as Back-Up Servicer, the more effort and capacity is required beforehand, and vice versa**



## **Phases of Back-Up Servicing**

# Phases of Back-Up Servicing

## 4 PHASES



### Phase 1: Set-Up

- Define data structures for data exchange
- Define data exchange path
- Define capacity profile
- Documentation of procedures in Process Manual

### Phase 2: Stand-By

- Continuously testing of data exchange path
- Maintain capacity profile
- Type and scope as defined by the client



### Phase 3: Activation

- Triggering of Activation Case
- Lead time depending on defined type and scope

### Phase 4: Servicing

- Effecting of all defined tasks by Back-Up Servicer as primary servicer
- Ensure proper Run-down for entire portfolio



**Back-Up Servicing is the key to get the Money back for Lenders**



### **Set-Up: Preparing for Activation Event**

- Set out framework regarding scope and extent of services required
- Determine processes that are key for succeeding as a Back-Up Servicer
- Define a common goal, considering different scenarios for a solution

### **Stand-by: Maintenance, Testing, Further development**

Obtain updates regarding ongoing changes within the operating platform, including:

- Any changes affecting IT systems
- Process changes
- IT systems access testing, also taking into account password update procedures
- Number of staff deployed by the operating platform, Maintenance of service levels





### After the activation event: Ensure ongoing processing

Demonstrate that

- All processes that have been prepared and documented in the process manual are working as envisaged
- All IT system access can be fully activated
- Data are transferred to target systems

Quick decision-making is essential for the Back-Up Servicer to successfully take over the activity as set out in the process manual



### After the activation event: Ensure ongoing processing

Staff already involved earlier in Set-Up phase and in subsequent fire drills and activation drills

- Ideally tasked with coordinating and communicating
- Ensure knowledge transfer and continuity
- Thus minimizing any losses regarding important information or knowledge gaps, also helping to establish capacity and clarity for action

**➡ Taking over the entire portfolio and effecting a controlled Run-down requires to fully deploying capacity and resources, so that the**

**➡ Back-Up Servicer can do the job and get the Money back for Lenders**



## **Case Study:**



### **Vivacon or How to get the Money back for Lenders**

# How to get the Money back for Lenders

## USE CASE

**LOANCOS is the only Back-Up Servicer that got activated in a large scale insolvency outside Lehman**



Situation	Stand-By	Activation	Servicing
<p><b>Vivacon AG</b></p> <ul style="list-style-type: none"><li>• 10,000 Groundleases</li></ul>  <ul style="list-style-type: none"><li>• 20,000 homeowner properties nationwide</li><li>• Cash Flow Situation under surveillance (Watchlist case)</li><li>• High volume (€ 4 bn.)</li></ul>	<ul style="list-style-type: none"><li>• 3 Senior Lenders &amp; Noteholder Trustee looking for Back-up Servicer in „Hot“ Stand-By</li></ul>  <ul style="list-style-type: none"><li>• LOANCOS: Establish all operational processes for Groundlease management</li></ul>	<ul style="list-style-type: none"><li>• Vivacon insolvency due to lack of liquidity following default of key Groundlease lessee</li><li>• Trigger event led to BUS activation as primary servicer</li></ul>	<ul style="list-style-type: none"><li>• Effect all defined responsibilities through Servicer</li><li>• Execute all operational processes (2014-2018)</li><li>• Recovery through sale transactions (2018f)</li></ul>



**Back-Up Servicing is key to get the Money back for Lenders**



## Conclusion



- Having an experienced Back-Up Servicer on board will facilitate any Debt financing program
- Back-Up Servicers with previous large-scale activation experience will know where the critical points are that need to be resolved
- The primary task is always to get the Money back for Lenders



**This is how a Back-Up Servicer can contribute to Capital Marketability for Operating Platforms and Sustainable Financing Programs**



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# COFFEE BREAK



# **REGULATORY ASPECTS OF SUSTAINABLE SECURITISATIONS**

**JOHANNES ROTHMUND, HOGAN LOVELLS**



# EDW Workshop - Sustainable ABS - A new Asset Class? Regulatory Developments

14 November 2023

# Agenda

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- Overview of the Regulation on EU Green Bonds
- Regulation on EU Green Bonds: Securitisation aspects
- Sustainability disclosure in prospectuses
- Questions





A photograph of a traditional bamboo suspension bridge spanning a river in a dense, lush green forest. The bridge is constructed from numerous bamboo poles and ropes, leading the viewer's eye towards the far end. The surrounding trees are vibrant green, and the water below is a clear, light green color. A green semi-transparent box is overlaid on the left side of the image, containing the title text.

# Overview of the Regulation on EU Green Bonds

# Regulation on European Green Bonds

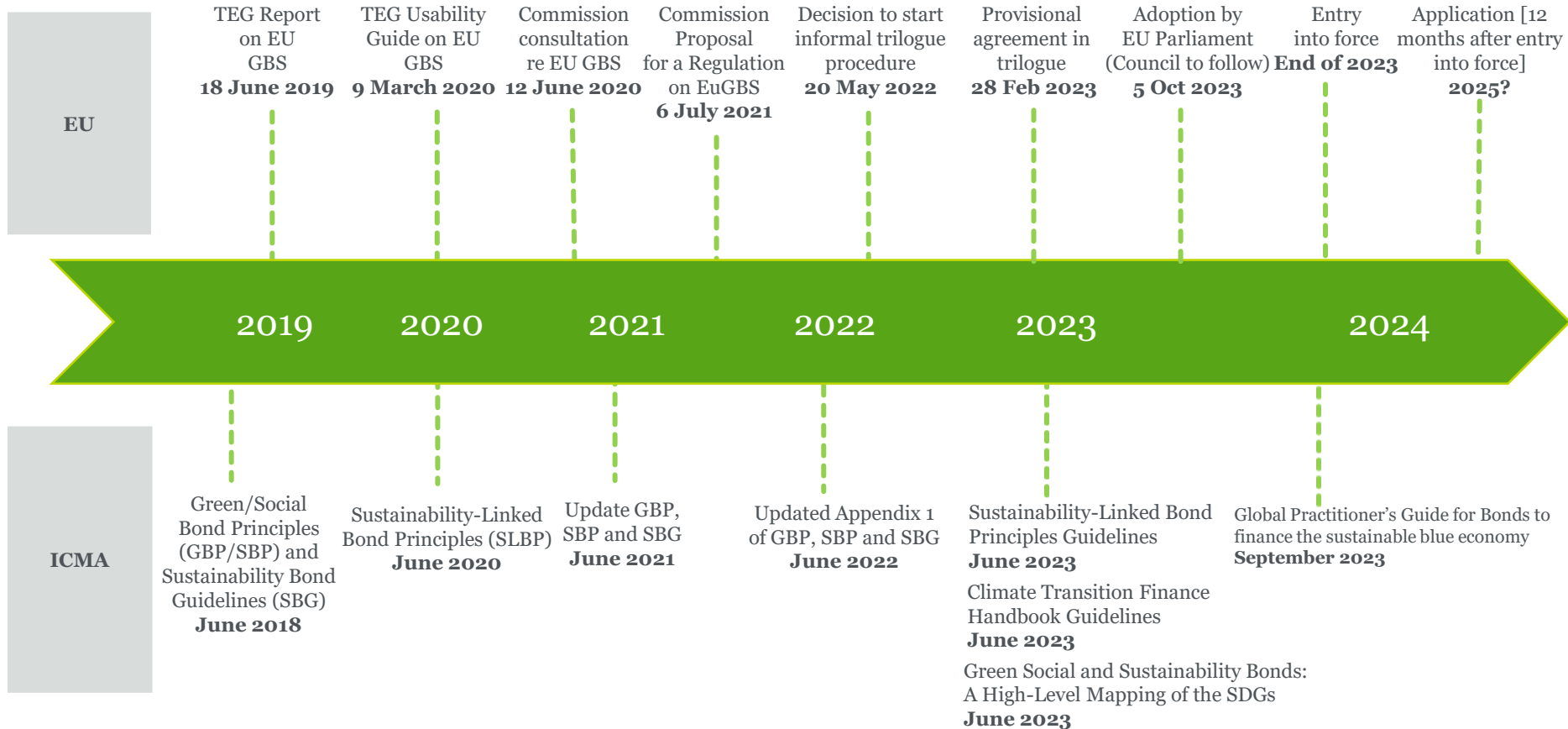
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- Establishes a voluntary standard with mandatory requirements for any bond labelled "European Green Bond" or "EuGB"
- Also sets out optional sustainability disclosure requirements for bonds that are marketed as environmentally sustainable and sustainability-linked bonds (**SLBs**)
- Can be used instead or in conjunction with existing market standards
- Sets gold standard for issuing green bonds in the EU



# Milestones for EU GBS and ICMA Principles / Guidelines



# What types of bonds are in scope?

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- Applicable to use of proceeds bonds:
  - for which a prospectus under the EU Prospectus Regulation (EU PR) has been published; or
  - where one of the exemptions from producing a prospectus under the EU PR for sovereign bonds (or sovereign guaranteed bonds) applies
- Non-EU issuers can use the EuGB designation provided they are not located in a non-cooperative jurisdiction for tax purposes or high-risk third country



# Voluntary label

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- Use of EuGB label is **voluntary** and other green-, sustainability-, or any other ESG-themed bonds will still be able to use any other label or market themselves as green or sustainable without complying with the EuGB Regulation.
- Such bonds may wish to adhere to the **optional guidelines for bonds marketed as environmentally sustainable and SLBs** (to be published by EC).
- Any bond using the label EuGB or European green bond **must comply with the requirements in the EuGB Regulation**, including the requirement to produce certain reports.
- **National competent authorities will have wide powers** to ensure compliance with the EuGB requirements as well as their existing powers under the EU Prospectus Regulation to ensure that issuers comply with the disclosure requirements and obtain an external review.



# Use of Proceeds

---

- **Proceeds must be fully allocated in accordance with the taxonomy requirements** to one or more of the following categories (the “**gradual approach**”):
  - (a) fixed assets (other than financial assets),
  - (b) capital expenditures,
  - (c) operating expenditures with a 3-year lockback limitation,
  - (d) financial assets (debt or equity or a combination thereof) created not later than 5 years after the issuance of the bond,
  - (e) assets and expenditures of households.
- **Issuers may** allocate proceeds from one or more outstanding European Green Bonds (allocation to be demonstrated in allocation reports) to a portfolio of
  - (a) fixed assets or
  - (b) financial assetsin accordance with the taxonomy requirements (the “**portfolio approach**”).

# Use of Proceeds

---

- **Flexibility pocket:** Up to 15% of the proceeds may be allocated to economic activities that comply with the taxonomy requirements, with the exception of technical screening criteria (TSC) where:
  - the TSC have not entered into force for that relevant activity by the date of issuance of the EuGB Regulation, or
  - the activities are in the context of international support reported in accordance with internationally agreed guidelines, criteria and reporting cycles.

# CapEx plans

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- Issuers must publish a **CapEx plan** where the proceeds are used for capital or operating expenditures
- CapEx plan must set a deadline by which all capex/opex will be taxonomy aligned (before the EuGB reaches maturity)
  - Issuer must obtain assessment from an external reviewer about the taxonomy alignment of capex and opex
  - The prospectus must include a summary of the CapEx plan which should list the most significant projects carried out by the issuer, measured as a share of the total capital expenditures covered by the issuer's capex plan
  - The issuer also has to include a report on the progress made on the implementation of the Capex plan in the allocation report

# Application of TSC and grandfathering

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- Issuers must ensure that the bond proceeds are allocated in accordance with technical screening criteria (TSC) in the Taxonomy Regulation applicable at the time of issuance of the bond
- If the relevant TSC are amended after the issuance of the bond, then there is a grandfathering period of 7 years, by the end of which time the issuer must ensure that the following proceeds are aligned with the amended TSC:
  - proceeds that have not yet been allocated; and
  - proceeds covered by the CapEx plan that have not yet met the taxonomy requirements
- For portfolio approach, only assets may be used where underlying economic activity is aligned with TRS applicable at any point in time during seven years prior to allocation report
- Issuers must draw up an alignment plan where any proceeds are at risk of not being aligned with TSC and must submit it to an external review

# Factsheet and reports

Document/ medium	Point of time/frequency	Content
<b>European Green Bond Factsheet</b>	Prior to issuance	<ul style="list-style-type: none"><li>• Prescribed template in Annex I of the EuGB Regulation</li><li>• Regulated information for purposes of Art. 19 of the EU PR</li><li>• Accompanied by pre-issuance review of factsheet by external reviewer</li></ul>
<b>Annual Allocation Report</b>	Annually <u>until allocation</u>	<ul style="list-style-type: none"><li>• Prescribed template in Annex II of the EuGB Regulation</li><li>• Demonstration that proceeds of any EuGB have been allocated as required</li><li>• May relate to one or several EuGBs</li><li>• Must be made public within 270 days after each reporting period and external reviewers should have at least 90 days for their review</li></ul>
<b>Impact report</b>	After allocation, once during bond lifetime	<ul style="list-style-type: none"><li>• Prescribed template in Annex III of the EuGB Regulation</li><li>• Report on environmental impact of the use of proceeds of the EuGB</li><li>• May cover several issuances of EuGBs</li><li>• External review not mandatory, but if made, has mandatory elements</li></ul>
<b>Post-issuance review of Allocation Report</b>	Post-issuance	<ul style="list-style-type: none"><li>• Prescribed template in Annex IV of the EuGB Regulation</li><li>• Post-issuance report by external reviewer of allocation report after full allocation of proceeds</li><li>• To be obtained after full allocation of proceeds or, in case of portfolio approach, for every allocation report including a change in assets allocated</li></ul>

# Prospectus and website publication

Document/ medium	Point of time/frequency	Content
<b>Prospectus Art. 14 EU GBS</b>	Date of approval	<ul style="list-style-type: none"><li>• EuGB label can only be used for bonds for which a prospectus under the EU PR has been published (except for bonds issued by sovereigns)</li><li>• Prospectus to include information about the use of proceeds</li><li>• Prospectus may incorporate information from the factsheet by reference</li><li>• Prospectus shall include a summary of the Capex Plan (including list of most important projects by share of total capital to be spent by the issuer and specifying type, sector, location and expected finalisation year of the projects)</li></ul>
<b>Website publication Art. 15 EU GBS</b>		<ul style="list-style-type: none"><li>• An issuer of EuGB must publish on its website and make available free of charge until at least 12 months after the maturity of the bond:<ul style="list-style-type: none"><li>• EuGB Factsheet (including pre-issuance review)</li><li>• Annual Allocation Reports (including post-issuance reviews)</li><li>• Cap-Ex plan (where applicable)</li><li>• Impact Report (including potential review)</li><li>• Link to website where prospectus can be consulted</li></ul></li></ul>

# External reviewers

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- Main task of external reviewers: **assessing alignment with Taxonomy criteria**
- Establishment of a regime for registration with, and on-going supervision of, external reviewers by ESMA
- External reviewers must comply with organisational, process and governance requirements as well as requirements regarding pre-issuance and post-issuance reviews
- Procedures for equivalence assessment, recognition or endorsement of non-EU reviewers
- **Transitional regime** for the first 18 months following date of application of EuGB Regulation
- **Practical issues**: high standards may deter rating agencies from applying as an external reviewer for EuGB



An aerial photograph of a river flowing through a dense, green forest. The river is light blue and rocky, with several large boulders visible in the water. The forest is thick and covers the entire landscape around the river.

## Regulation on EuGB: Securitisation aspects



# Securitisation, Chapter III, Art. 16 et seq. EU GBS

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- No dedicated separate framework for securitisation proposed. “Only” Chapter in EU-GBS
- permits a **use of proceeds** model for the **originator**, as opposed to the issuer
- **Synthetic securitisations** are not included (to be reviewed after 5 years)
- Securitised exposures must comply with EU Taxonomy
- Securitised exposures may not include:
  - exposures financing the exploration, mining, extraction, production, processing, storage, refining or distribution, including transportation, and trade of fossil fuels
  - exposures financing electricity generation from fossil fuels, co-generation of heat/cool and power from fossil fuels, or production of heat/cool from fossil fuels, where the activity meets the criteria for ‘do no significant harm’ set out in Delegated Regulation (EU) 2021/2139, may be included in the pool of securitised exposures for the purposes of this Regulation.
- Requirements for multiple originators on a pro rata (use of proceeds) or joint basis (transparency).

# Securitisation, Chapter III, Art. 16 et seq. EU GBS

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- **Reporting** – additional layer (factsheet, allocation report and voluntary templates). Interaction with other reporting requirements, e.g. Article 7, STS sustainability PAIs?
- Additional prospectus disclosure
- Repository reporting, websites and ESAP
- **Practical issues**: alignment with the EU Taxonomy, no social, no synthetics
- Review after 5 years (then every 3 years).

An aerial photograph of rolling green hills under a cloudy sky. A narrow, winding road cuts through the center of the hills, leading the eye from the foreground into the distance. The hills are covered in lush green grass and some darker green patches of trees or shrubs. The sky is filled with soft, white clouds, with a hint of blue visible near the horizon.

## Sustainability disclosure in prospectuses

# Sustainability disclosure in Prospectuses

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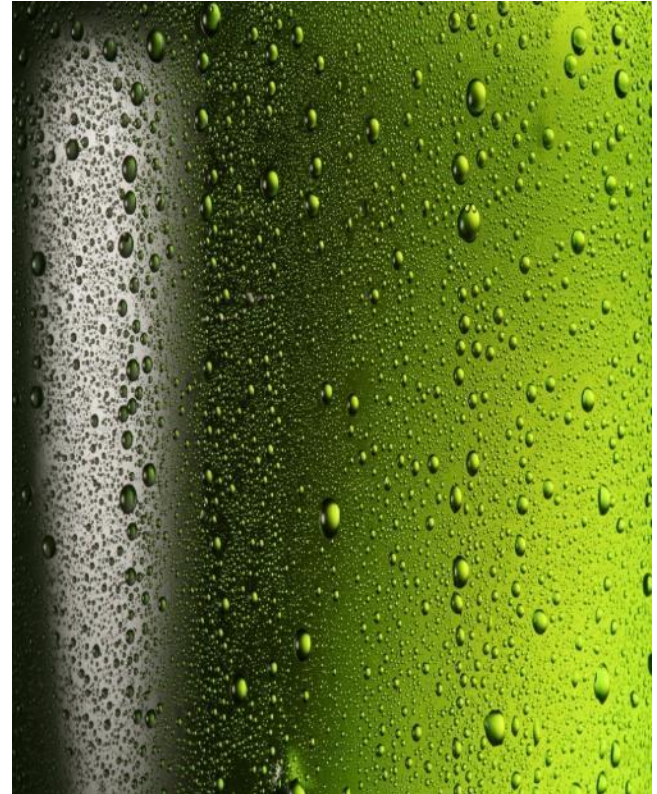
- What ESG related information currently needs to be included in the prospectus?
- ESG information disclosed in periodic sustainability reports and ESG ratings does not need to be reproduced in the prospectus unless it is relevant to the bonds, i.e. it impacts the credit of the issuer, the use of proceeds, the terms of the bond or is integral to the issuer's principal business activities.
- Such information might be included in marketing materials, provided that it is consistent with the prospectus, in order to minimise the risk of greenwashing.
- Listing Act - proposed amendments to the Prospectus Regulation
  - ESG-related information should be provided in the prospectus as investors are increasing considering ESG matters when making investment decisions.
  - The EC is empowered to adopt delegated acts setting out standardised annexes specifying the ESG-related information to be included in prospectuses which are advertised as taking into account ESG factors or pursuing ESG objectives - new Article 13(1)(g)
  - Potential overlap with EuGB requirements?
    - The EC has said it intends to act with swiftness, taking into account the experience with the voluntary guidelines prepared for green bonds in the EuGB Regulation.
    - The Council has said that it intends to examine thoroughly the proposals for ESG disclosure in prospectuses proposed in the Listing Act
  - But both the Listing Act and EuGB Regulation **unlikely to apply until 2025** so in July 2023 ESMA issued a statement on sustainability disclosure in prospectuses



# ESMA statement on sustainability disclosure in prospectuses

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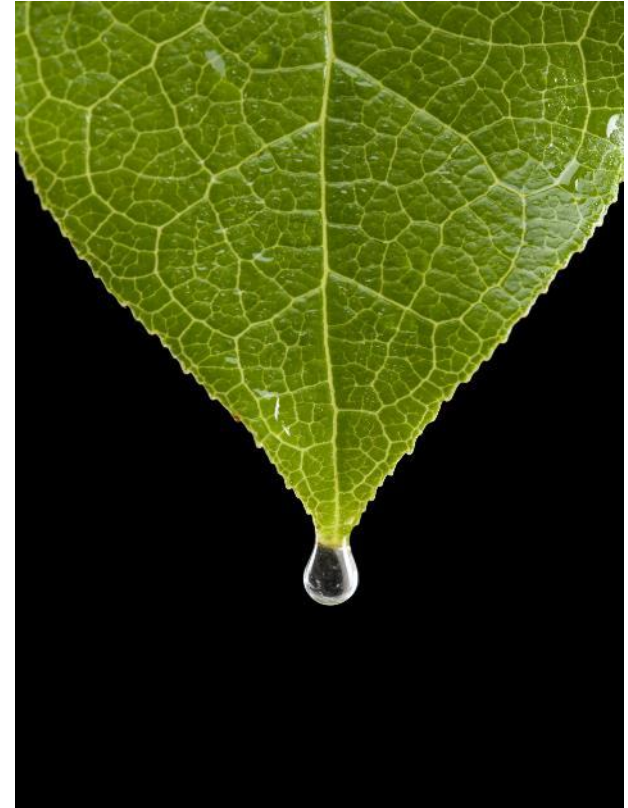
- ESMA's view of how current EU legislation applies to the disclosure of sustainable bonds in order to **promote coordinated action** by national competent authorities
- Relevant for **new prospectus approvals** under the EU Prospectus Regulation
- Prospectuses should include "***the necessary information which is material to an investor to make an informed decision***" (Art 6 (1) EU PR): extent to which sustainability-related disclosure needed will depend on the circumstances of the issuer and type of securities
- Basis for any sustainability-related statements should be provided
- **Risk factors** should not include sustainability-related disclaimers to excuse non-performance
- Prospectus should clearly define:
  - The components of any mathematical formula where applicable
  - Any technical terminology relating to sustainability
- **Consistency** of sustainability-related disclosure and **advertisements**
- Additional disclosure for ABS deals regarding the disclosure used to purchase the underlying assets considered to be sustainable



# ESMA statement: SLBs and UoP bonds

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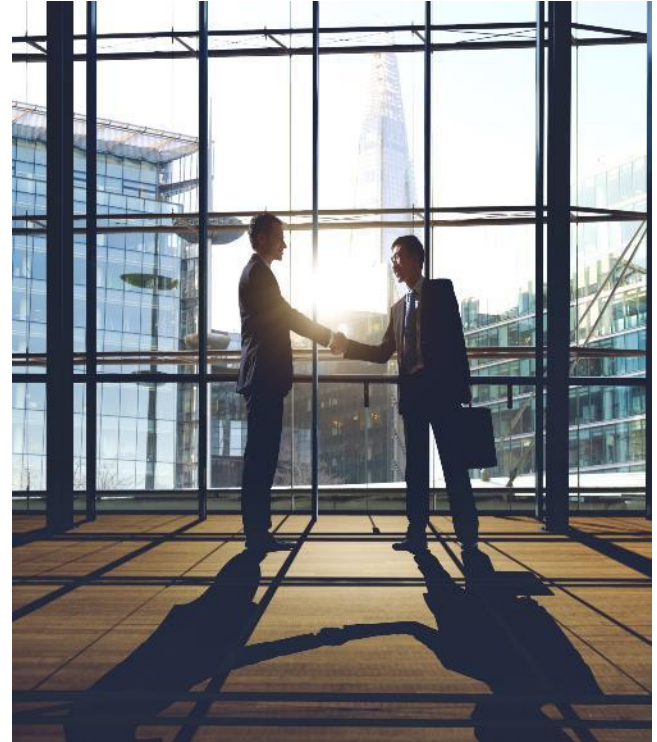
- **Use of Proceeds Bonds** should include:
  - disclosure about use and management of proceeds e.g. material from the green bond framework
  - description of the goal and characteristics of sustainable project and how it is to be achieved, or, if not yet identified, the criteria used to determine how the proceeds will be allocated
  - disclosure and scope of any third party advice or assurance
- **SLBs** should include:
  - information about key performance indicators (KPIs) and sustainability performance targets (SPTs)
  - disclosure of risks relating to KPIs and SPTs including conflicts of interest
  - rationale for the issuance and impact on the issuer where the issuer is issuing the SLBs "for general corporate purposes"
  - disclosure on interest payments influenced by the fulfilment or failure to fulfil sustainability objectives
  - disclosure about scope of any third party advice or assurances



# ESMA statement: impact on deals

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- Consider impact of the ESMA statement on disclosure
- Overall, limited departure from current best practice
- Note that references to websites are not enough and certain additional information may need to be included
- Requirement for supplement?
- Risk factors should not exclude any responsibility on the part of the issuer for the use of proceeds.
- Carefully assess the ESG-related information included in advertisements and ensure consistency with the disclosure included in the prospectus
- National Competent Authorities likely to take ESMA's statement into account when reviewing prospectuses





Environmental,  
social and  
governance

Partnering with clients to  
achieve sustainable growth

Questions?

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# **CLIMATE RISK DATA IN CREDIT RESEARCH**

**CHRISTIAN AUFSATZ, DBRS MORNINGSTAR**

# Climate Risk Data in Credit Research



Christian Aufsatz  
Managing Director  
14 November 2023

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# Climate and Climate Change Feature Prominently in ESG Frameworks

Potential credit-relevant ESG Factors that could be affected by climate considerations (current decade)

## Physical Climate Risk

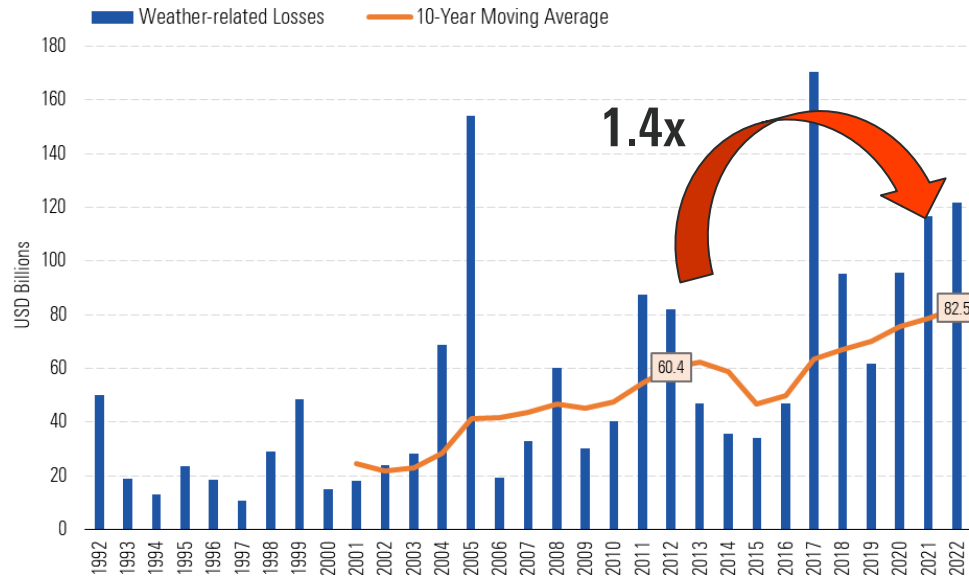
- Climate and Weather Risk (E)
- Resource and Energy Management (E)
- Corporate Governance (G)

## Transitional Climate Change Risk

- Carbon and GHG Costs (E)
- Climate and Weather Risk (E)
- Resource and Energy Management (E)
- Social Impact Products & Services (S)
- Product Governance (S)
- Corporate Governance (G)

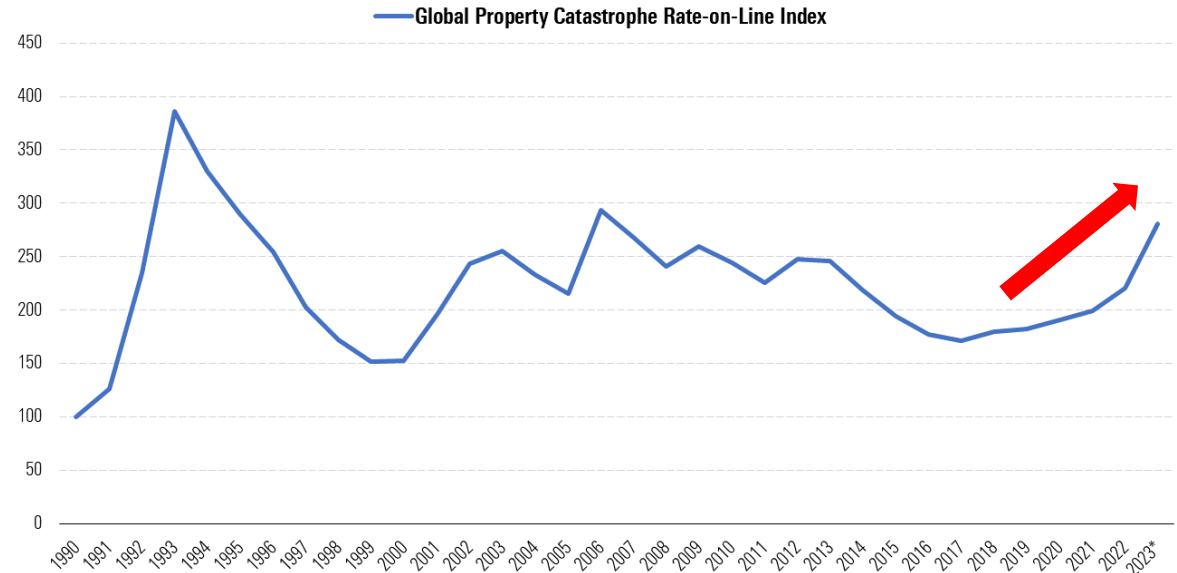
# Physical Climate Risk: Acute and Chronic Adverse Climatic Events

Weather-related insured losses are increasing ... as are reinsurance rates in response



Note: All figures in 2022 dollars

Sources: DBRS Morningstar, Swiss Re Institute



\* Preliminary January 2023 Data

Source: Guy Carpenter

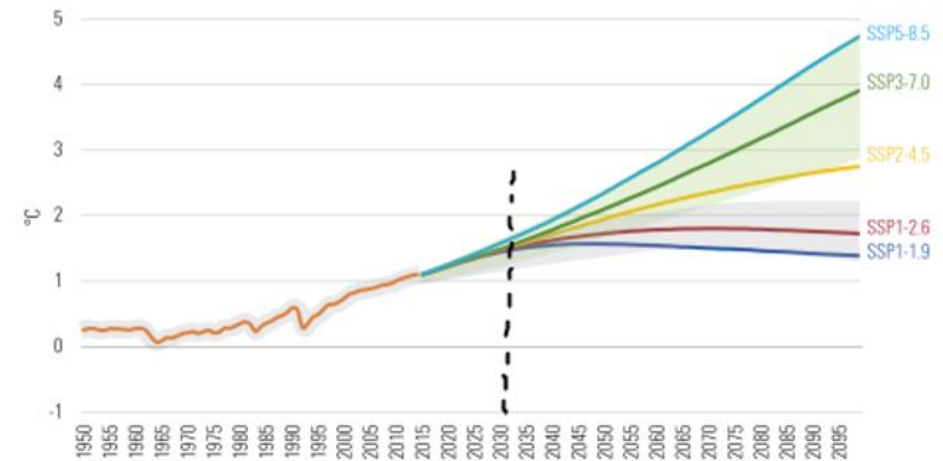
Physical climate risk is relevant for real estate but can also negatively affect productivity due to reliance on infrastructure and supply chains.

# Physical Climate Risk

## Assessing the potential future risk to asset values

- **Potential Value Loss:** (*Frequency Hazard, Severity Hazard, Asset Vulnerability & Damage*)
  - Frequency and Severity of hazards: Weather models/simulation
  - Vulnerability: Geo-location of the asset
  - Vulnerability: Topography
  - Damage: Asset specifications (mitigants)
- **Multi-Dimensional**
  - Time horizons
  - Climate change pathways (IPCC SSPs)
  - Expected loss versus tail losses

Global Surface Temperature Change Relative to 1850–1900 Across Five IPCC SSPs



Source: IPCC AR6 Climate Change 2021: The Physical Science Basis' report - Figure SPM.8 (a)<sup>1</sup>

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# Morningstar Sustainalytics Physical Climate Risk Data

Combination of property, topography and weather data

## Morningstar Sustainalytics' Analysis

- Database of 1.2 billion North American and European properties
- Map of 180,000 regions (NUTS3 in Europe)
- Frequency and intensity functions based on historical data
  - Adjusted by climate change multiplier across time and scenarios
  - Derived from a climate model
- Widely recognised climate model, and can be adopted to other climate models
- Translation an event of given severity into financial impact
  - Probabilistic damage distribution
- Incorporates flooding, wildfire, extreme winds, landslides and combined (stacked)

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# Morningstar Sustainalytics Physical Climate Risk Data

Expected and tail risk asset losses in different climate change scenarios and time horizons

## Data Output by Hazard and Stacked

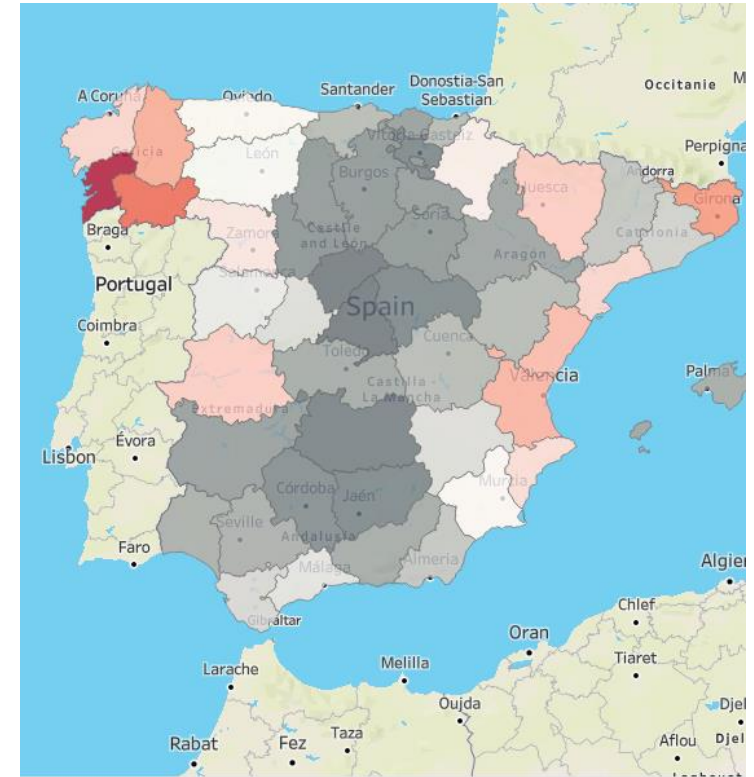
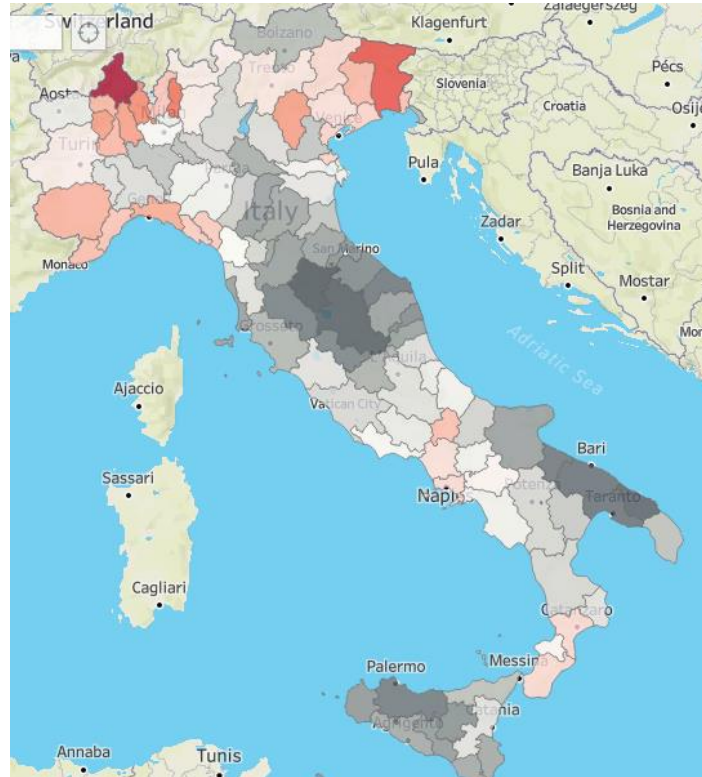
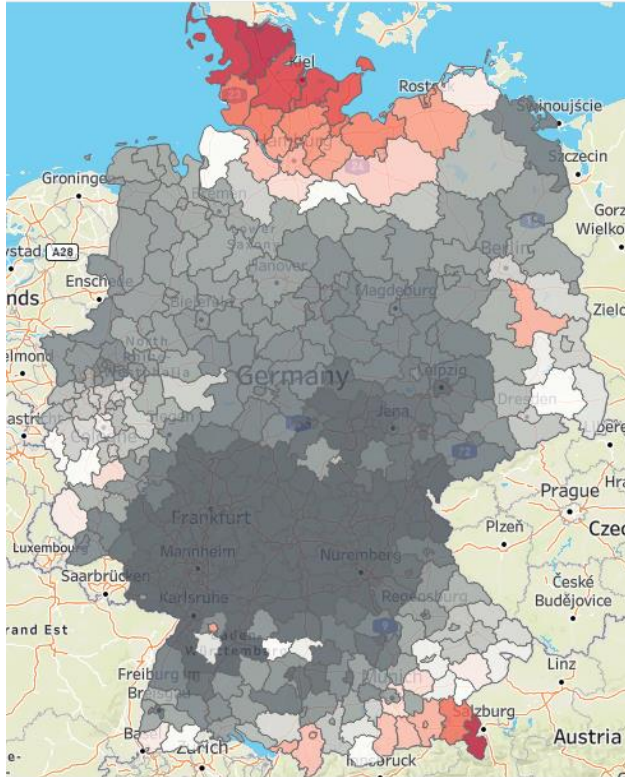
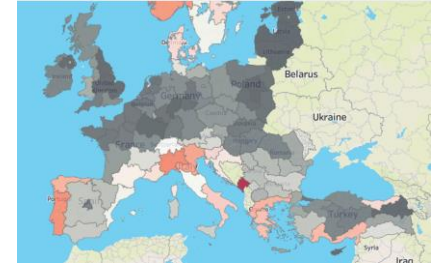
- *Property Level*
  - Expected annual losses
  - Tail losses (less likely, higher severity events)
  - Climate/hazard damage score (derived logarithmic metric from the expected damage, numerical assessment ranging from 0 to 100)
  - Time horizons 2030/2040/2050/2100
  - Three climate change pathways
- *Regional Level (Country, NUTS1, NUTS2, NUTS3)*
  - Aggregated/average loss assessment in region
  - Percentage of assets at risk
  - Damage score distribution



# Physical Climate Risk in Europe

Many variables ... many regions ... but still an approximation

Climate Score - IPCC SSP2-4.5 – Time Horizon 2040



Note: Colour coding relative to selection average (Europe/country)

Source: Morningstar Sustainability

# Physical Climate Risk in Europe

## Regional details for one of the most exposed NUTS3 regions (average of all properties in region)

Expected Damage across Risk / Time / Scenario (Select Metric ---->)								Expected Damage				200Y Tail Risk Damage across Risk / Time / Scenario (Select Metric ---->)								200Y Tail Risk Damage			
				Metric Selection %				% Difference in Metric Selection % from the First along Table (Across)								Metric Selection %				% Difference in Metric Selection % from the First along Table (Across)			
				2030	2040	2050	2100	2030	2040	2050	2100					2030	2040	2050	2100	2030	2040	2050	2100
Tâmega e Sousa	PT11C	Extreme Winds	SSP1-2.6	0.00%	0.00%	0.00%	0.00%	0.00%	-1.55%	1.59%	5.85%	PT11C	Extreme Winds	SSP1-2.6	0.11%	0.11%	0.12%	0.12%	0.00%	-1.00%	1.01%	3.68%	
			SSP2-4.5	0.00%	0.00%	0.00%	0.00%	0.00%	-0.80%	1.76%	7.26%			SSP2-4.5	0.12%	0.12%	0.12%	0.12%	0.00%	-0.49%	1.13%	4.54%	
			SSP5-8.5	0.00%	0.00%	0.00%	0.00%	0.00%	3.19%	5.14%	34.89%			SSP5-8.5	0.11%	0.11%	0.11%	0.13%	0.00%	2.02%	3.27%	20.73%	
	Fires	SSP1-2.6	0.03%	0.04%	0.05%	0.07%	0.00%	26.12%	56.06%	110.40%	PT11C	Fires	SSP1-2.6	1.81%	2.19%	2.58%	3.19%	0.00%	21.31%	42.76%	76.26%		
		SSP2-4.5	0.03%	0.04%	0.04%	0.08%	0.00%	22.04%	42.94%	147.53%			SSP2-4.5	1.73%	2.05%	2.33%	3.44%	0.00%	18.56%	34.46%	98.61%		
		SSP5-8.5	0.03%	0.04%	0.05%	0.12%	0.00%	21.64%	50.45%	249.65%			SSP5-8.5	1.83%	2.16%	2.54%	4.47%	0.00%	17.71%	38.65%	143.63%		
	Floods	SSP1-2.6	0.26%	0.25%	0.23%	0.21%	0.00%	-5.23%	-9.15%	-18.47%	PT11C	Floods	SSP1-2.6	4.88%	4.68%	4.53%	4.17%	0.00%	-4.08%	-7.15%	-14.47%		
		SSP2-4.5	0.23%	0.24%	0.23%	0.21%	0.00%	3.04%	0.66%	-10.08%			SSP2-4.5	4.48%	4.59%	4.50%	4.13%	0.00%	2.31%	0.50%	-7.77%		
		SSP5-8.5	0.21%	0.21%	0.21%	0.18%	0.00%	0.26%	-0.81%	-13.58%			SSP5-8.5	4.16%	4.17%	4.14%	3.73%	0.00%	0.21%	-0.62%	-10.29%		
	Landslides	SSP1-2.6	0.00%	0.00%	0.00%	0.00%	0.00%	-2.52%	-4.16%	-10.08%	PT11C	Landslides	SSP1-2.6	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-33.33%	-66.67%		
		SSP2-4.5	0.00%	0.00%	0.00%	0.00%	0.00%	1.54%	0.26%	-4.76%			SSP2-4.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-33.33%			
		SSP5-8.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.13%	-0.93%	-7.28%			SSP5-8.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-50.00%		
	Stacked	SSP1-2.6	0.29%	0.29%	0.29%	0.28%	0.00%	-1.70%	-1.79%	-3.90%	PT11C	Stacked	SSP1-2.6	6.42%	6.48%	6.59%	6.68%	0.00%	0.88%	2.70%	4.07%		
		SSP2-4.5	0.27%	0.28%	0.28%	0.29%	0.00%	5.21%	5.61%	8.54%			SSP2-4.5	6.00%	6.30%	6.40%	6.83%	0.00%	5.04%	6.77%	13.80%		
		SSP5-8.5	0.25%	0.25%	0.26%	0.30%	0.00%	3.17%	6.16%	22.44%			SSP5-8.5	5.75%	5.97%	6.20%	7.23%	0.00%	3.86%	7.80%	25.66%		

Source: Morningstar Sustainability

- Predominant hazards in Europe are floods, extreme winds, and fires
- Annual expected damage/value losses are low but are higher than those of last decade and will increase in the mid to long term; tail risk damage can be meaningful already now in certain regions
- Global warming can reduce hazard risk (for example, river floods) while other risks increase (fires)
- Exact property location and topography are very important

---

# Physical Climate Risk Data and Credit Data

**Conclusion: Start of an interesting data journey**

## **Credit Relevance in European Structured Finance**

- Expected average hazard loss very low in the shorter term, and property owner losses are often insured
- Attention to tail losses for highly concentrated portfolios
- Reduced insurance coverage (or at higher costs) could affect loan availability and value

## **Research and Securitised Portfolio Information**

- Relative exposure in different markets and between deals
- Overlay regional credit and performance data (EDW) with economic and climate risk data (NUTS3 level)
- Regional exposure and physical climate risk overview in rating reports (RMBS, NPL, SME CLO, CMBS)
- Explore more detailed mapping (subject to GDPR)
- Chronic (rising sea levels, wooden pile rot, subsidence, etc.) and transitional climate change considerations

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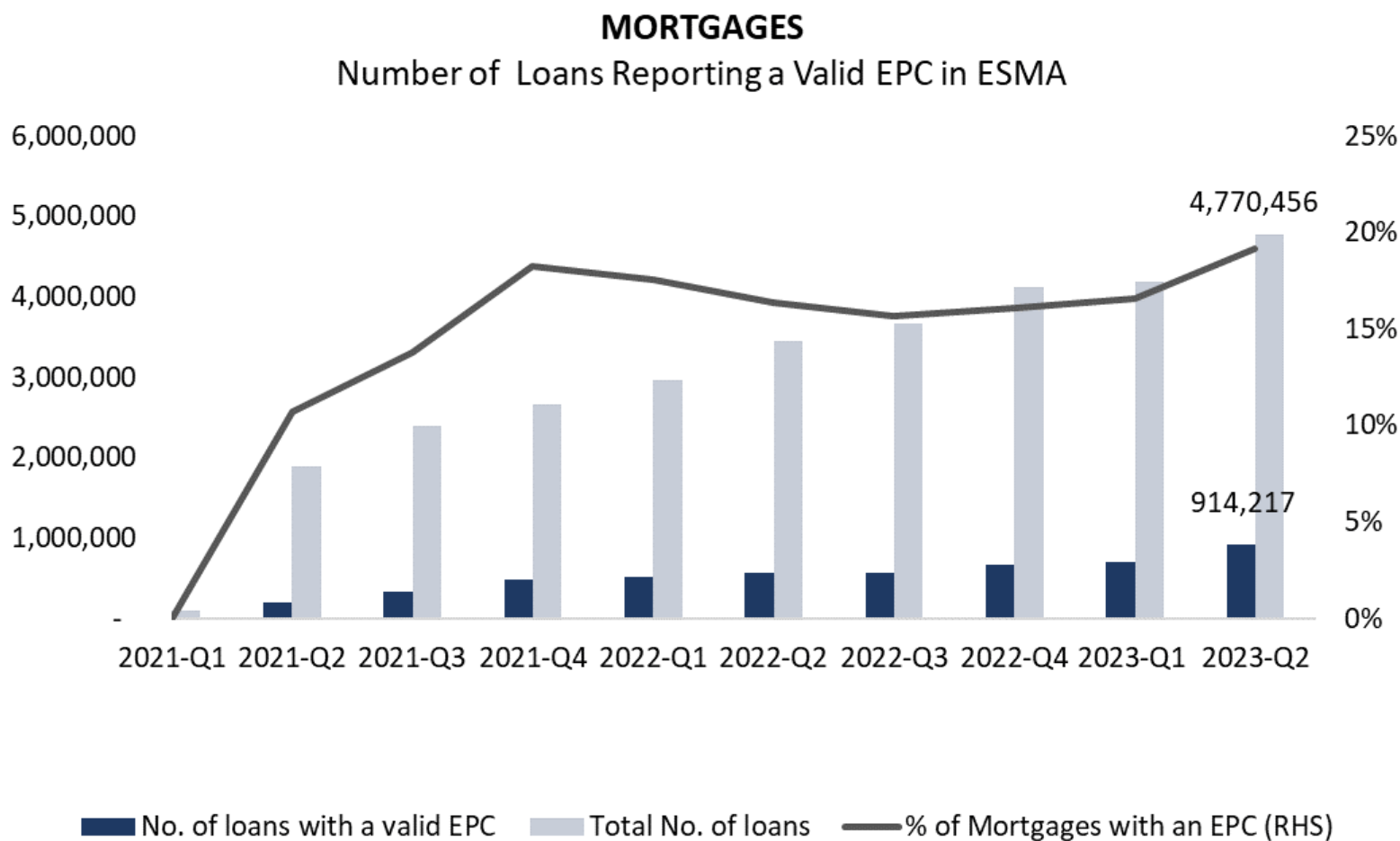


# **DATA INSIGHTS INTO SUSTAINABLE ABS**

**DR. CHRISTIAN THUN, EUROPEAN DATAWAREHOUSE**

# EPC DATA AVAILABILITY

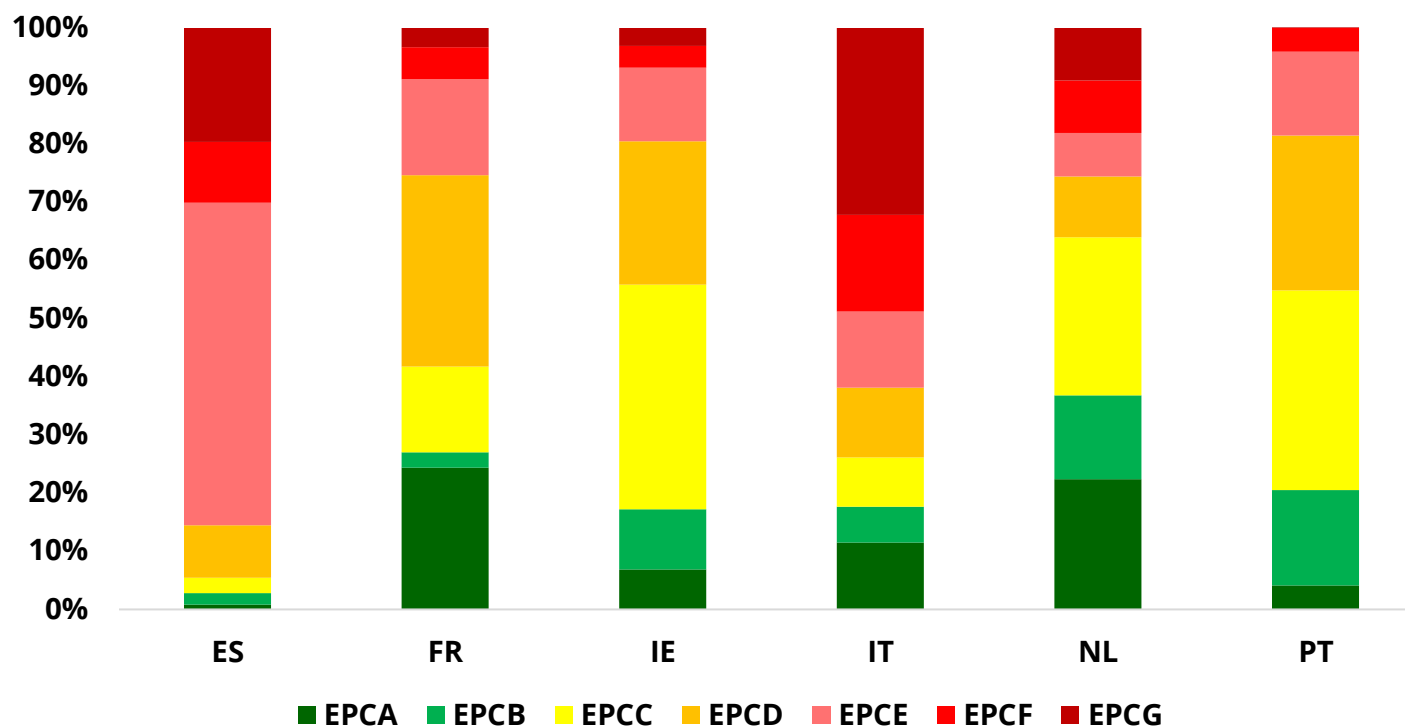
## Mortgages



# EPC DATA AVAILABILITY

## Mortgages

EPC distribution by Country using EDW data  
(based on number of loans)

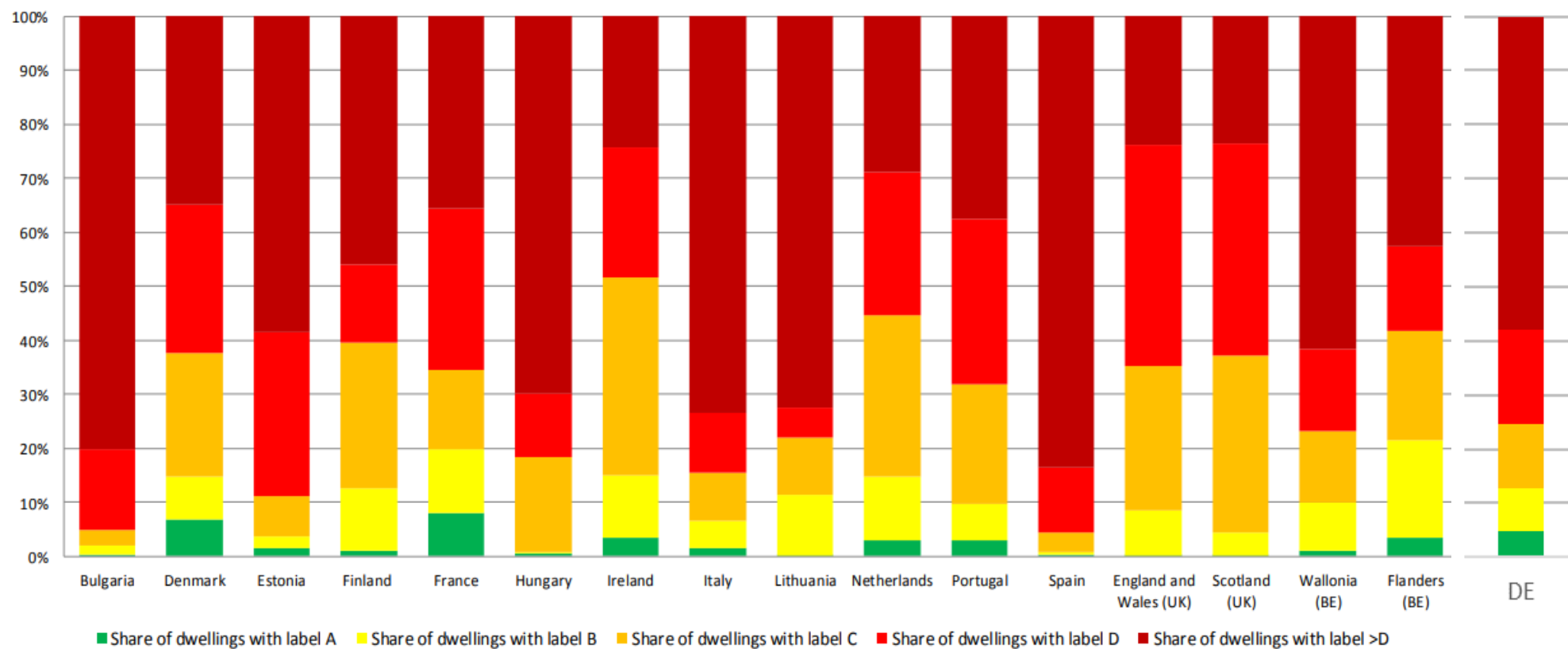




# EPC LABEL DISTRIBUTION

## Buildings

Distribution of the building stock in the EU per EPC class



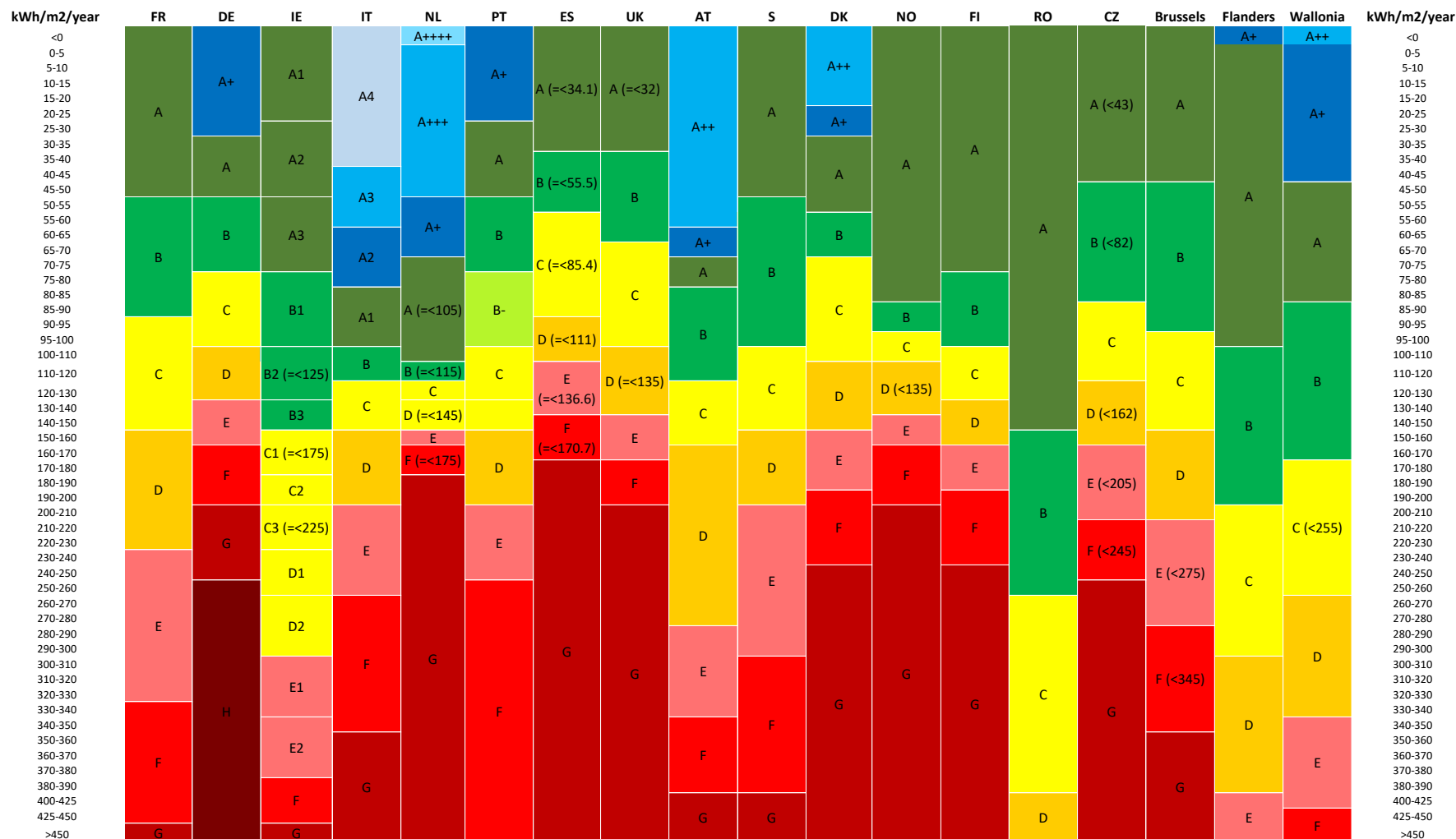
Source: Buildings Performance Institute Europe (2017), Factsheet: 97% of buildings need to be upgraded

Link: [https://www.bpie.eu/wp-content/uploads/2017/12/State-of-the-building-stock-briefing\\_Dic6.pdf](https://www.bpie.eu/wp-content/uploads/2017/12/State-of-the-building-stock-briefing_Dic6.pdf)



# EPC THRESHOLDS BY COUNTRY

## Buildings

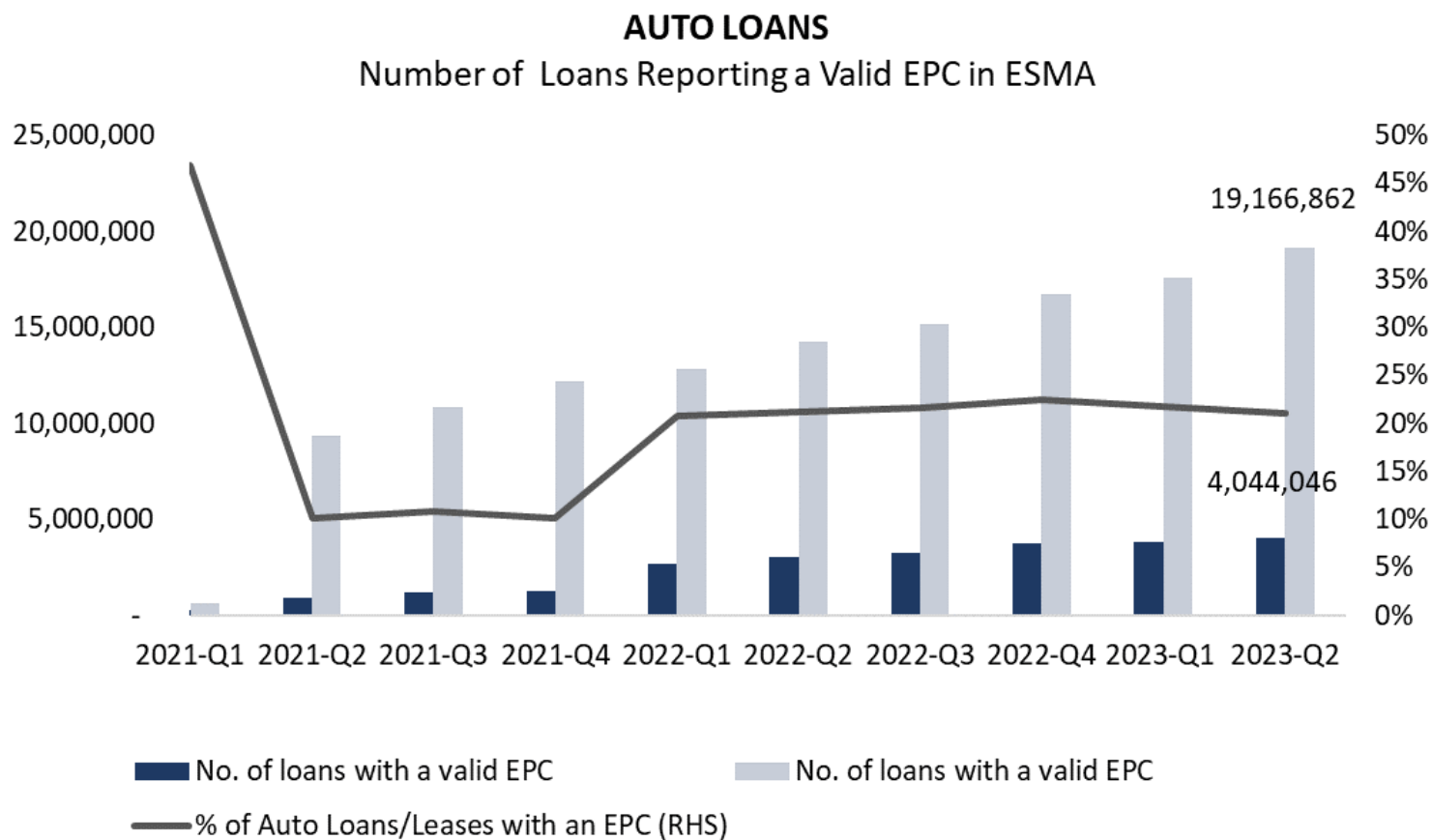


Source: BPiE, ING, national and EU sources

NOVEMBER 2023

# EPC DATA AVAILABILITY

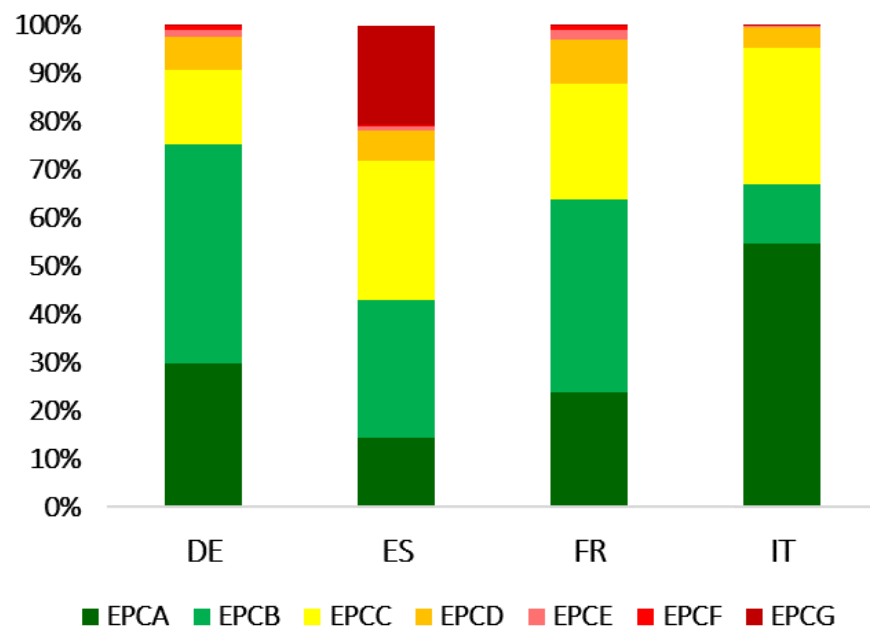
## Auto loans



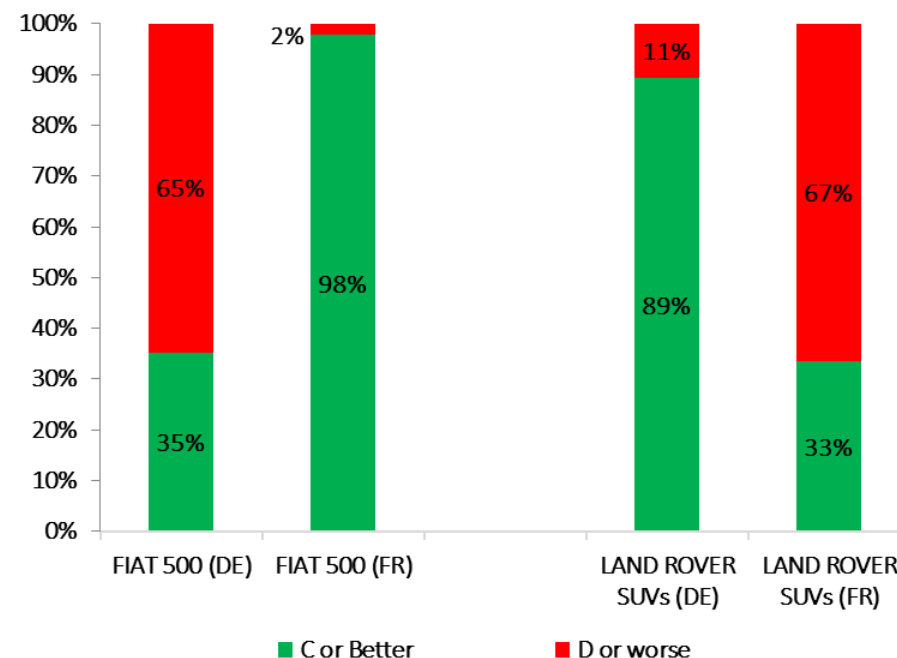
# EPC DATA AVAILABILITY

## Auto loans

EPC distribution by Country using EDW data  
(based on number of loans)



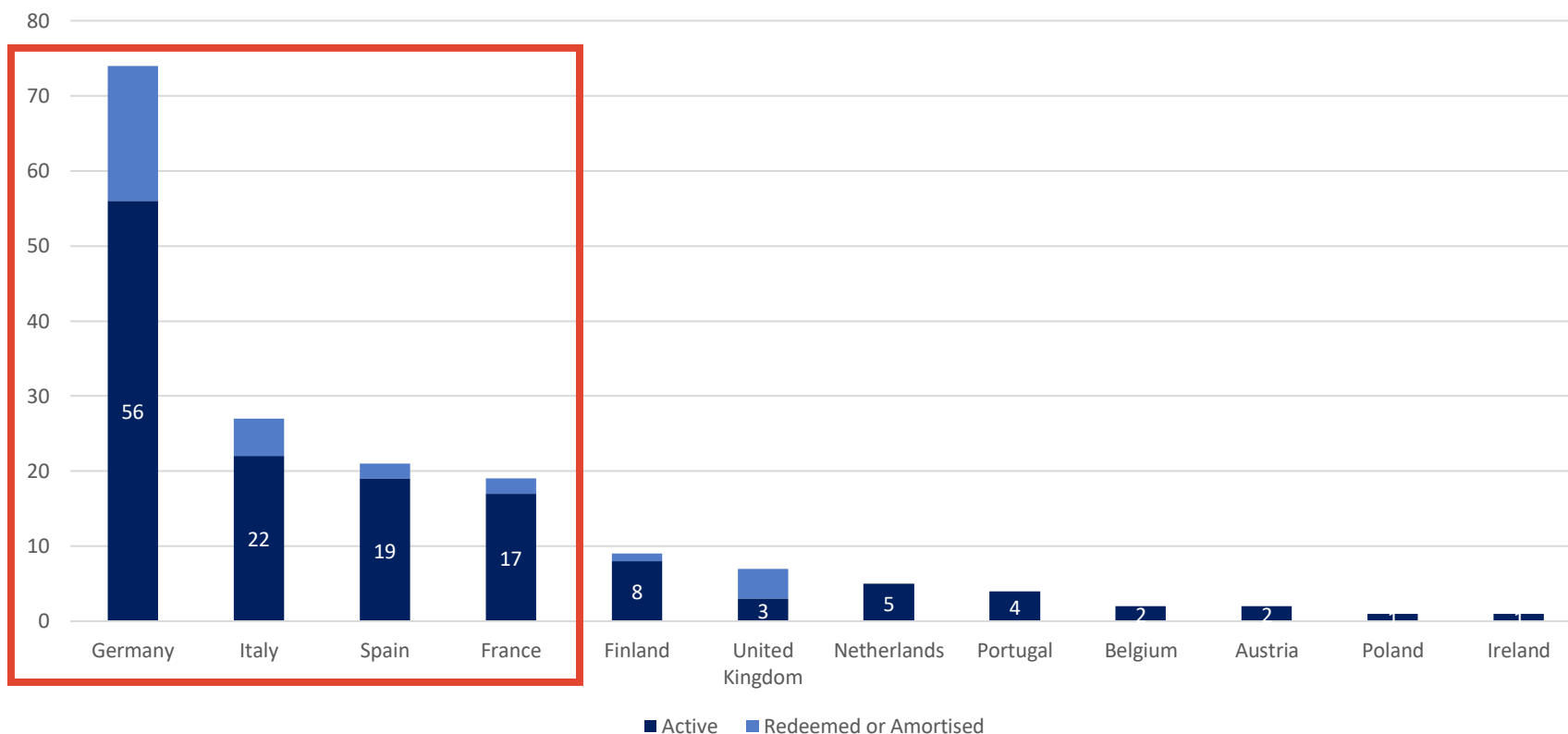
EPCs assigned to FIAT 500 and Land Rover SUVs -  
Germany vs France  
(Based on number of loans using EDW data)



SOURCE: EDW RESEARCH

# AUTO & LEASE DEALS REPORTING ESMA – COUNTRY BREAKDOWN

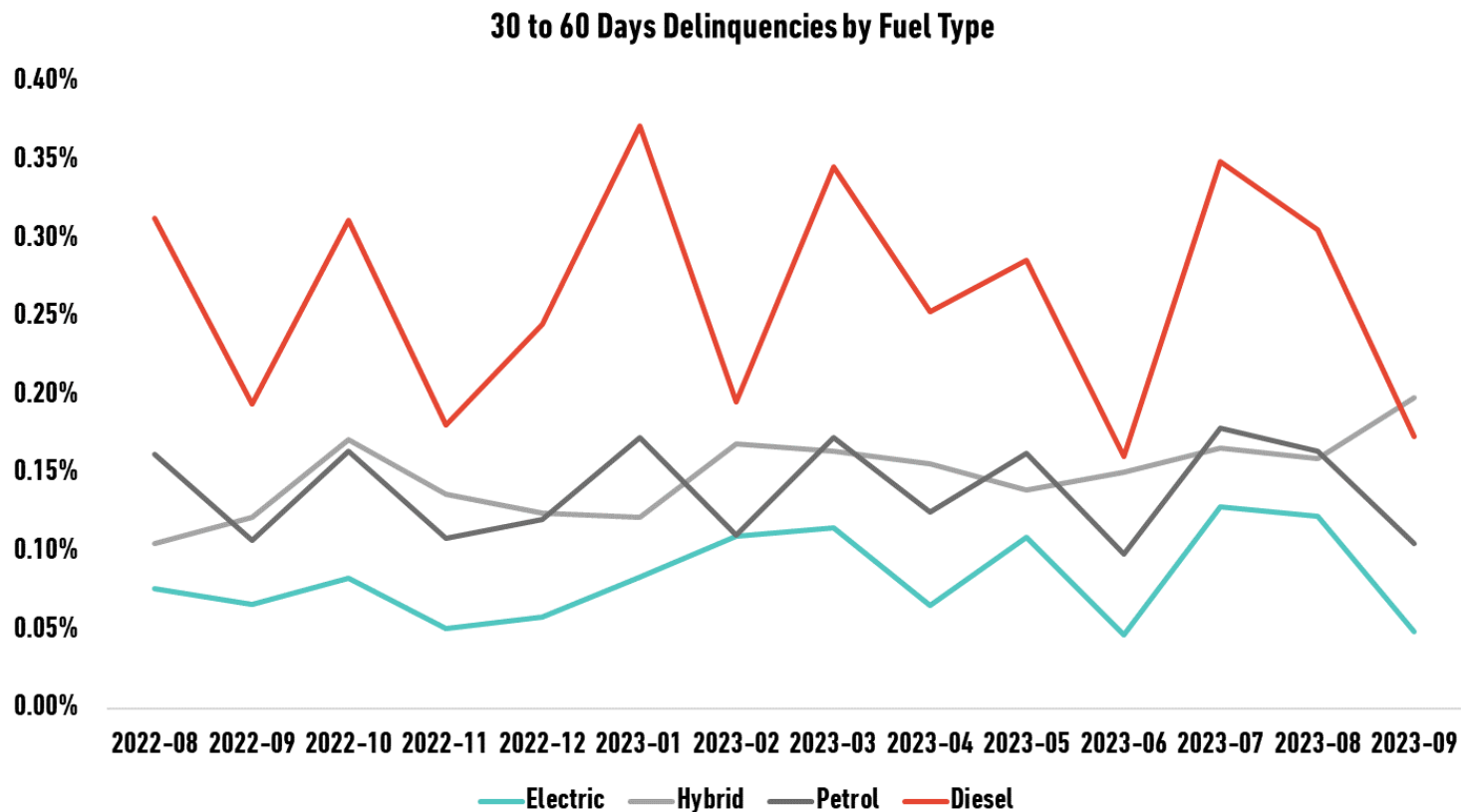
Germany, Italy, Spain & France are biggest issuers of auto and leasing transactions under ESMA



Source: European DataWarehouse data as of October 2023

# GERMAN AUTO ABS - 30 TO 60 DAY DELINQUENCIES (% OF BALANCE)

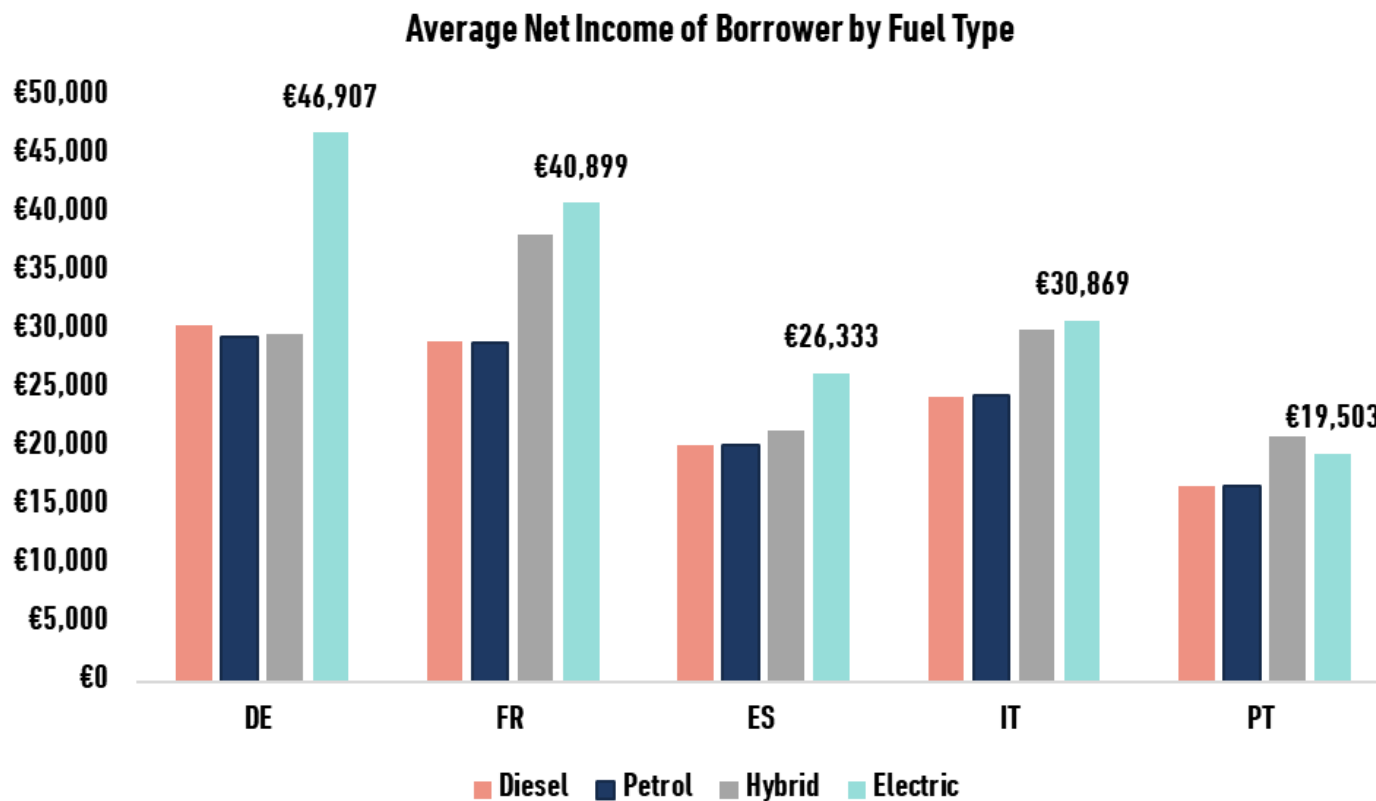
Electric cars seem to have the lowest delinquency levels when compared with cars of other fuel types



Source: European DataWarehouse

# AUTO ABS – BORROWER INCOME BY FUEL TYPE

Borrowers that get a loan/lease for electric cars have the highest incomes



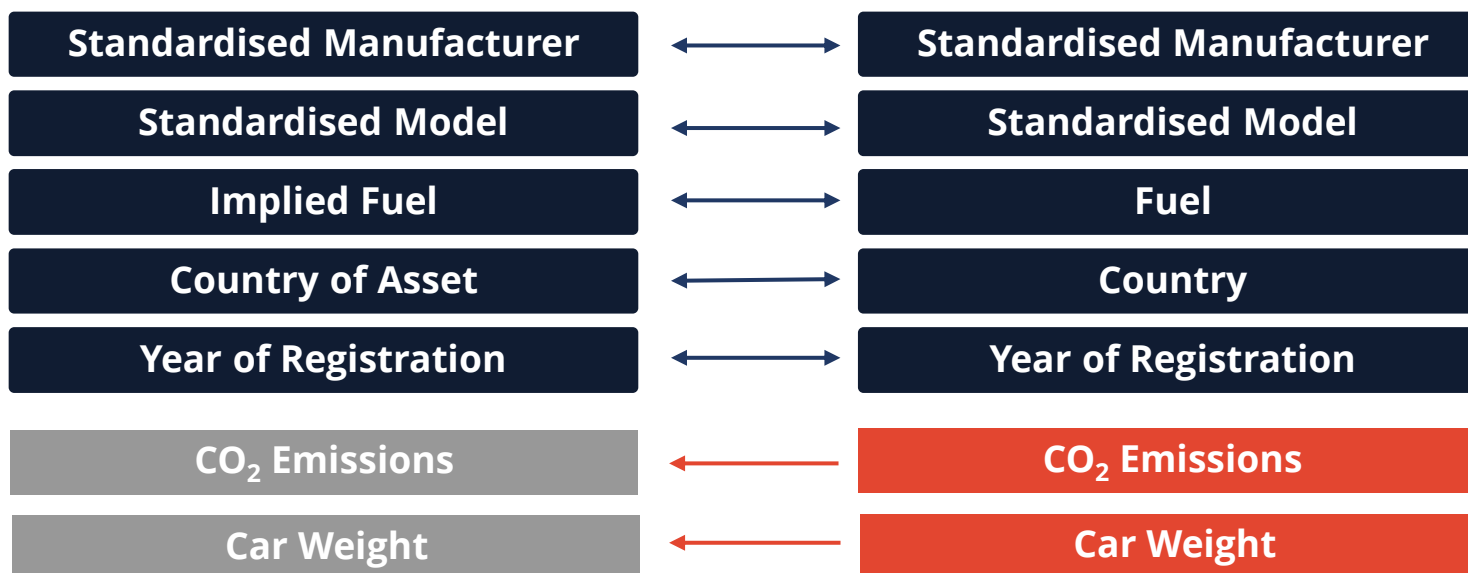
Source: European DataWarehouse

# ESTIMATING CO2 EMISSIONS FOR CAR LOANS/LEASES IN EDW DATA

Matching EDW data with European Environment Agency (EEA) data

## EDW DATA

## EEA DATA

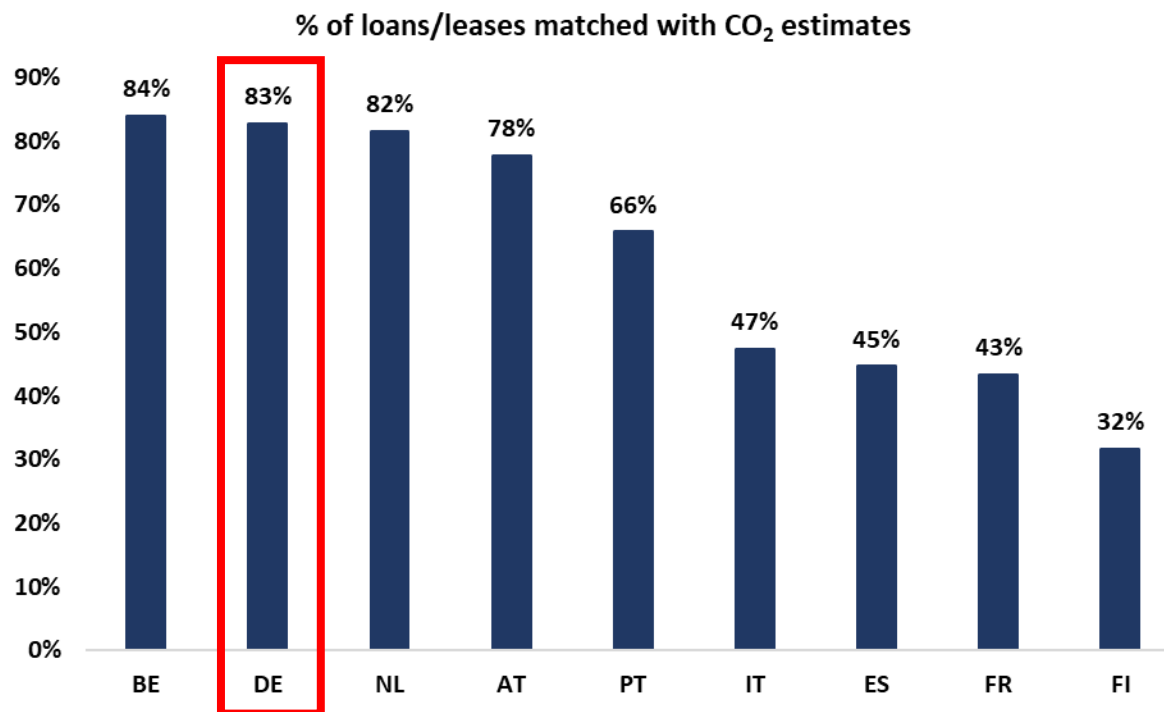


### Assumptions

- If fuel cannot be implied using available info, the average CO<sub>2</sub> emissions of Petrol + Diesel cars for the manufacturer, model, year, and country are used
- For cases where only NEDC standard emissions are available, a factor of 1.2 is used to convert NEDC emissions to estimated WLTP emissions

# CO2 EMISSIONS MATCHING

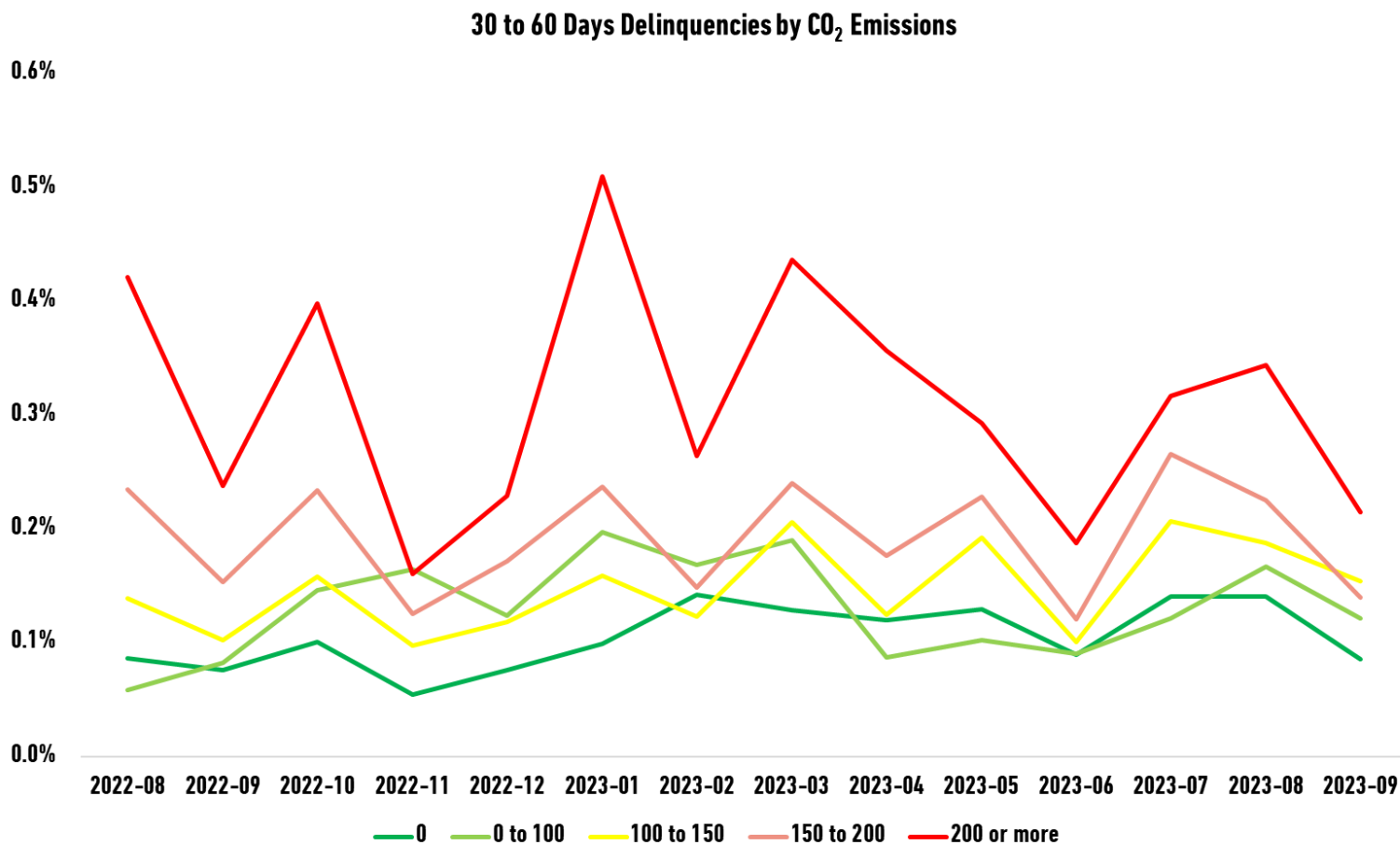
83% of German Auto loans/leases were matched with a CO<sub>2</sub> Emissions estimate





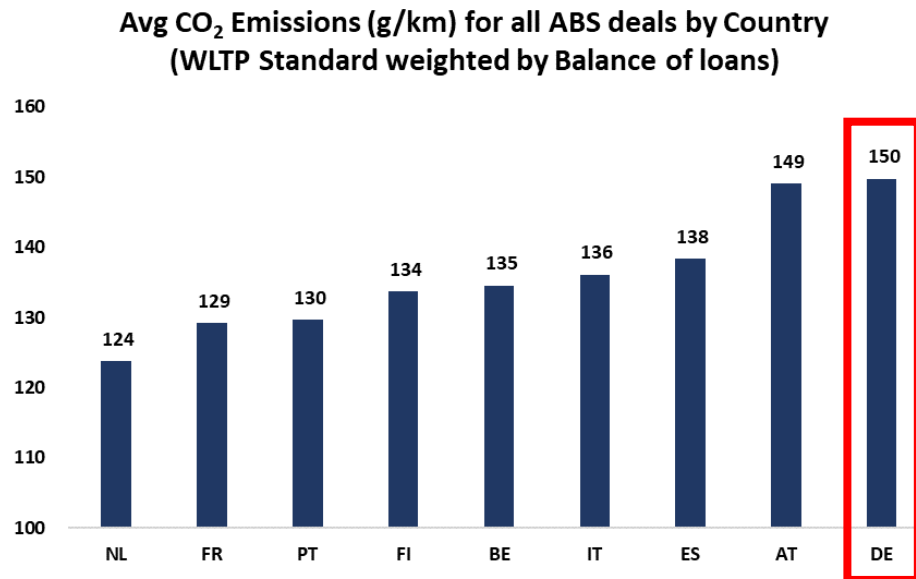
# GERMAN AUTO ABS – 30 TO 60 DAY DELINQUENCIES (% OF BALANCE)

Low emission vehicles seem to have lower delinquency levels

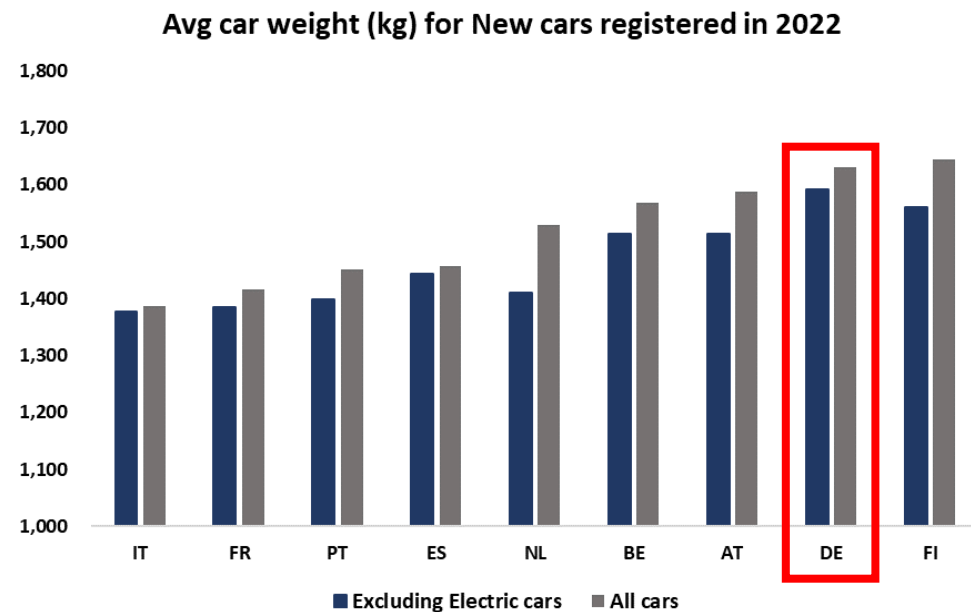


# CO2 EMISSIONS ESTIMATES

Germany has highest estimated average CO<sub>2</sub> emissions for cars in ABS portfolios



Source: European DataWarehouse



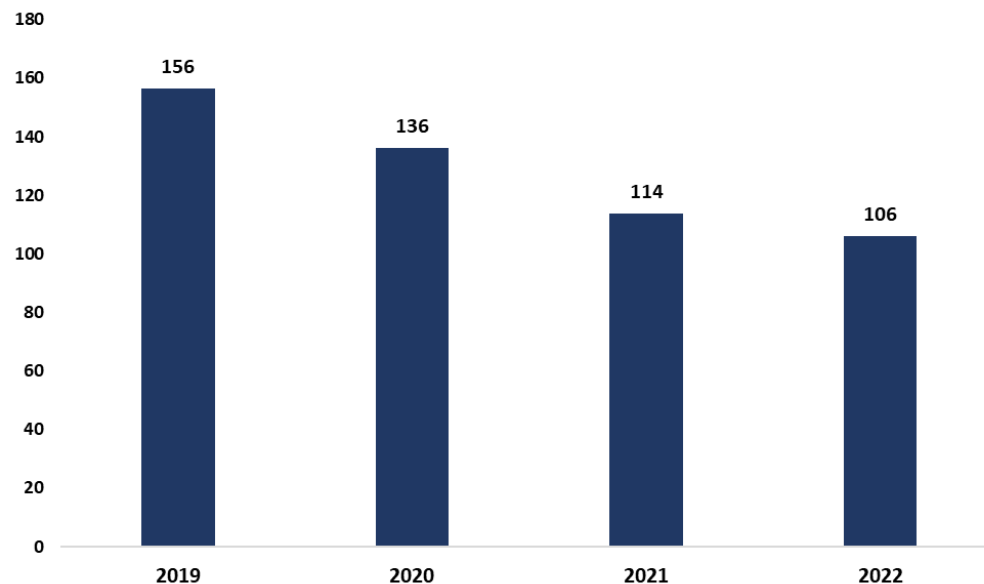
Source: European Environment Agency

- German car manufacturers seem to produce heavier cars and consumers appear to have a preference for such heavier cars.

# CO2 EMISSION TRENDS

German consumers are buying more low emission vehicles every year

Avg CO<sub>2</sub> emissions (g/km) of New Passenger Cars in Germany has fallen each year



Source: European Environment Agency

Avg CO<sub>2</sub> emissions (g/km) of New Passenger Cars in 2022



Source: European Environment Agency

# SCHLUSSBEMERKUNGEN



**Q&A**

# THANK YOU//CONTACT US

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