EBA REPORT

IN RESPONSE TO THE CALL FOR ADVICE FROM THE EUROPEAN COMMISSION ON GREEN LOANS AND MORTGAGES

DECEMBER 2023 – EBA/REP/2023/38

EBA EUROPEAN BANKING AUTHORITY

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List of abbreviations

A-IRB	Advanced internal ratings-based
CCD	Consumer Credit Directive
CfA	Call for Advice
CRD	Capital Requirements Directive
CRE	Commercial real estate
CRR	Capital Requirements Regulation
EBA	European Banking Authority
EEA	European Economic Area
EPBD	Energy Performance of Buildings Directive
EPC	Energy performance certificate
ESG	Environmental, social and governance
ESIS	European Standardised Information Sheet
EU	European Union
EuGB	European Green Bond Standard
FINREP	Financial Reporting
F-IRB	Foundation internal ratings-based
GHG	Greenhouse gas
GLP	Green Loan Principles
HH	Household
IRB	Internal ratings-based
LMA	Loan Market Association
MCD	Mortgage Credit Directive
NFC	Non-financial corporate
PED	Primary Energy Demand
POG	Product oversight and governance
RRE	Residential Real Estate
SA	Standardised approach
SDG	Sustainable Development Goal
SME	Small and medium-sized enterprise

Executive Summary

The European Union's (EU) sustainable finance agenda sets ambitious measures to support the transition to a climate-neutral and sustainable economy. It aims to support companies, households as well as the financial sector in the transition by encouraging private funding of sustainable projects and technologies.

Credit institutions have a key role to play if the EU is to reach its sustainability objectives. Bank lending is an important source of sustainable finance, particularly for retail and small and medium-sized enterprise (SME) borrowers. Some potential borrowers however do not have sufficient access to funding. This is recognised in the European Commission's 'Strategy on Financing the Transition to a Sustainable Economy' of July 2021, which calls for action on a more inclusive sustainable finance framework, allowing households and SMEs to access sustainable finance.

As part of its strategy, on 22 November 2022, the European Commission sent a Call for Advice (CfA) to the European Banking Authority (EBA) on green loans and mortgages, requesting its advice on the definition and potential supporting tools for these loans. This report is the EBA's response to the CfA.

Building on the industry input to the EBA survey, the report shows that green loan volumes currently constitute a limited share of credit institutions' overall balance sheets and that practices to identify green loans vary. Based on the analysis presented in this report, the EBA puts forward several recommendations for the European Commission to consider in any future policy formulation to support markets for green loans.

The EBA sees merit in introducing a voluntary common definition of green loans and a green loan label. This includes a definition of green and associated process requirements.

Such an initiative should however leverage existing market practices and be consistent with other policy initiatives in the EU sustainable finance framework – including the European Green Bond Standard and Taxonomy disclosure requirements. It is also important that a green loan label is able to reflect not only loans aligned with the EU Taxonomy and its technical screening criteria, but also loans with a dedicated environmental objective.

The purpose of a voluntary green loan label is to facilitate the transition to a more sustainable economy. To this end, the sustainable finance framework should consider the incorporation of such a green loan label in existing or future financial support schemes in the EU.

The report further puts forward advice to the European Commission to support credit institutions' green loan origination. It recommends the inclusion of sustainability features of residential immovable property securing the loan in the Mortgage Credit Directive (MCD), as they are becoming an important element in mortgage lending.

Finally, the EBA is of the opinion that it is important to explore the full spectrum of sustainable finance beyond green loans. The report suggests further analysis of other types of sustainable financing and related potential policy initiatives.

1. Introduction

1.1 Background and rationale

In its communication of March 2018, the European Commission published its action plan on financing sustainable growth[1], launching an ambitious and comprehensive strategy on sustainable finance. One of the objectives set out in that action plan is to reorient capital flows towards sustainable investment in order to achieve sustainable and inclusive growth. This communication laid down the foundations of the EU's sustainable finance framework.

In 2020, the EU adopted the EU Green Deal[2] kick-starting a set of initiatives with the ambition to become the first climate neutral continent by 2050 and with the intermediate objective to reduce net greenhouse gas (GHG) emissions by at least 55% by 2030, compared to 1990 levels. This objective became legally binding for the EU institutions[3] and the EU member states in the European Climate Law[4]. The EU Green Deal has several elements and targets in the areas of climate action, clean energy, sustainable industry, buildings and renovations, sustainable mobility, eliminating pollution, greening the agriculture policy, preserving and protecting biodiversity, research and development, preventing unfair competition from carbon leakage.

With the objective to direct investments towards sustainable projects and activities, and ultimately deliver under the EU Green Deal, the EU provided clear scientific guidance on activities that qualify as contributing to environmental objectives. The Taxonomy Regulation[5], which entered into force in July 2020, forms the basis of the EU Taxonomy, a classification system establishing a list of economic activities contributing to the EU's climate and environmental objectives, known as sustainable economic activities.

The goal of the EU Taxonomy is to provide clear rules on what can be classified as 'green' or 'environmentally sustainable', in order to mobilise financing for those economic activities that make a contribution to the EU's environmental objectives. In other words, the goal of the EU Taxonomy is to help accelerate green or sustainable investments needed for the transition and to avoid the risk of greenwashing by providing a science-based transparency tool to investors, companies, financial institutions and consumers. In this way, it also helps avoid stranded assets by setting a level of ambition that is in line with the EU's climate objectives. The EU Taxonomy is a

[1] COM(2018) 97 final – Communication from the Commission – Financing Sustainable Growth (link).

[2] COM(2019) 640 final – Communication from the Commission – The European Green Deal (link).

[3] These are the decision-making institutions of the European Union.

[4] Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') (OJ L 243, 9.7.2021, p. 1–17).

[5] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (OJ L 198, 22.6.2020, p. 13–43).

central element in the EU's wider sustainable finance framework and its criteria are the reference for screening green or sustainable investments in economic and financial activities. While the EU Taxonomy is to remain a central element in the EU's sustainable finance framework and sets criteria for the sustainability assessment of a large number of economic activities, it still currently has some limitations. The EU Taxonomy covers the economic activities which are responsible for almost 80% of direct GHG emissions. Some key economic activities, such as farming as well as economic activities and investments contributing to the transition of the economy but falling short of meeting the technical screening criteria in full are not directly captured in the EU Taxonomy. To this end, improving and completing the classification system in the EU is an evolving process. Section 6.1 in Annex I details the main features of the EU Taxonomy Regulation.

The Taxonomy Disclosures Delegated Act[6] requires eligible financial undertakings to disclose information on how and to what extent their activities are associated with economic activities that qualify as environmentally sustainable in accordance with the EU Taxonomy. In this framework, credit institutions are required to calculate and disclose a green asset ratio, which indicates the share of their assets, i.e. loans and advances, debt securities, and equity instruments, that are aligned with the technical screening criteria of the EU Taxonomy. Similarly, the standards established in the Regulation on European Green Bonds (EuGB)[7] requires that the funds raised by the bond issuance be allocated to economic activities that are aligned with the technical screening criteria of the EU Taxonomy.[8]

Furthermore, Sustainable Finance Disclosure Regulation (SFDR)[9] together with complementing delegated acts[10] require financial market participants that issue financial products, including also credit institutions which provide portfolio management, to publicly disclose information on their financial products to indicate whether these products (i) integrate environmental, social and governance (ESG) risk considerations into their decision-making process; (ii) promote environmental and/or social characteristics, and may invest in sustainable investments; and (iii) have sustainable investment objective. These requirements also have a direct link with the EU Taxonomy as the sustainability characteristics and objective of the products are expected to be verified against it.

[6] Commission Delegated Regulation (EU) 2021/2178 and C(2023) 3851 final (Commission Delegated Regulation amending Delegated Regulation (EU) 2021/2178) (OJ L 443, 10.12.2021, p. 9–67).

[7] Regulation (EU) 2023/2631 of the European Parliament and of the Council of 22 November 2023 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds (OJ L, 2023/2631, 30.11.2023).

[8] In this regard, the EuGB allows that under specific conditions up to 15% of the proceeds can be used for economic activities that are not Taxonomy-aligned.

[9] Regulation (EU) 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosures in the financial services sector (OJ L 317, 9.12.2019, p. 1–16).

[10] Commission Delegated Regulation (EU) 2022/1288 of 6 April 2022 supplementing Regulation (EU) 2019/2088 (OJ L 196, 25.7.2022, 0. 1 – 72) and Commission Delegated Regulation (EU) 2023/363 of 31 October 2022, amending and correcting the regulatory technical standards laid down in Delegated Regulation (EU) 2022/1288 (OJ L 50, 17.2.2023, p. 3–27).

1.2 Household and SME lending in the context of sustainable finance agenda

The ambitious climate-related targets set out in the EU Green Deal cannot be achieved without the green transition of buildings and without the support to households and SMEs. In its 'Strategy on Financing the Transition to a Sustainable Economy' of July 2021[11], the European Commission outlined four policy areas in which further work is needed. One of the four policy areas is dedicated to a more inclusive sustainable finance framework, allowing households and SMEs to access sustainable finance.

Household consumption is approximately 24% of total GHG emissions in the EU.[12] In addition, buildings, of which the construction and occupation, are also significant for household and SME activities, are responsible for around 40% of the EU's energy consumption, and 36% of its energy-related GHG emissions.[13] SMEs are critical players in the EU's efforts to transition to sustainable economy, not only as drivers of technological change, but also as adopters of sustainable business models and practices to reduce their GHG emissions.

While sustainable finance can be channelled through various instruments, bank lending especially to households and SMEs would play a key role in their access to sustainable finance. On average, 46% of credit institutions' total lending are towards households and SMEs, of which over 61% are mortgages and loans collateralised by commercial real estate.[14] To this end, households' and SMEs' access to sustainable finance, and to green lending as part of this, is important to support the transition to a low carbon, more resource efficient and sustainable economy.

While bank lending remains the major source of external finance for households and SMEs[15], tools to support their access to the markets for green loans is still limited.[16] An analysis commissioned by the European Commission[17] identifies that challenges stemming from a lack of standardised financial products, a lack of regulatory guidance, high upfront costs and limited awareness of both institutions and borrowers are impediments to market growth. The same analysis[18] also highlights that certain types of borrowers, especially low-income households and SMEs are largely excluded from markets financing energy efficient buildings and production processes. It is argued that the

[11] COM/2021/390 final – Strategy for Financing the Transition to a Sustainable Economy (link).

[12] EUROSTAT Quarterly greenhouse gas emissions in the EU (as of Q1 2023) (link).

[13] COM (2020) 662 final - Communication from the Commission - A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives (link).

[14] EBA Risk Dashboard (as of Q4 2022) (link).

[15] ECB 25th round of the Survey on access to finance of enterprise (April – September 2021) shows that bank-related products and subsidised loans remained the most important financing source for SMEs (link).

[16] As presented below (Figure 1) market for green loans appear to be smaller in comparison to other sustainability products such as bonds and other investments, and especially retail borrowers' and SMEs access to sustainable finance, as documented in this report, is limited.

[17] The Energy Efficiency Financial Institutions Group (EEFIG), The Evaluation of financing practices for energy efficiency in buildings, SMEs and in industry, October 2021 (link).

[18] The Energy Efficiency Financial Institutions Group (EEFIG), The Evaluation of financing practices for energy efficiency in buildings, SMEs and in industry, October 2021 (link).

risky nature of their investment projects, as well as their limited expertise in screening energy efficiency projects and in producing the required technical documentation, makes it difficult for low-income households and SMEs to access financing for energy efficiency. It is therefore of paramount importance to support markets for green loans including households and SMEs, proportionately, without financially overburdening them in this transition.

1.3 Purpose and scope of the report

In its 'Strategy on Financing the Transition to a Sustainable Economy' of July 2021, the European Commission announced its intention to request an opinion from the EBA on the definition and possible supporting tools for green retail loans and green mortgages. Subsequently, the EBA received a call for advice[19] from the European Commission on 22 November 2022. This report has been developed as a response to the European Commission's call for advice to the EBA.

The EBA is requested to provide its advice to the European Commission covering the following key areas:

1. an overview of green loan markets and existing market practices;
2. a voluntary green loan definition based on the EU Taxonomy;
3. measures to encourage and facilitate the uptake of green loans while ensuring the protection of retail borrowers; and
4. green loan origination process.

In accordance with the request, the report covers the most relevant types of green loans originated by credit institutions in the EU, including loans with environmentally sustainable features, green mortgages and, where applicable, loans classified based on the EU Taxonomy and its six environmental objectives. Also, to reflect the emphasis on inclusiveness, the advice focuses on loans directed at retail borrowers such as households and SMEs. The report further refers to credit institutions' lending to non-financial corporates (NFCs) to present a comparative approach.

The request of the European Commission to the EBA is based on and complements the ongoing work on the foundations of the EU sustainable finance framework. These include the EU Taxonomy and other related policies in the area of sustainable finance.

More precisely, while the EU Taxonomy sets out criteria to classify an economic activity as sustainable, it does not set out criteria as to which lending activities of credit institutions can be classified as green or sustainable. To this end, the EBA's advice is first intended to support the European Commission in further policy considerations regarding the definition of green lending.

Secondly, as highlighted above, individuals and households can play an important role in transforming the economy by accessing sustainable finance. For example, green loans can help households and SMEs improve the energy performance of their buildings or switch to zero-emission vehicles. Currently, the market for green loans towards these borrowers remains limited, especially

[19] Call for Advice to the European Banking Authority on green loans and mortgages (link).

to be able to meet the EU sustainability targets. The EBA's advice is also intended to provide the European Commission with further considerations regarding measures to encourage the development of the markets for green loans and mortgages, especially for households and SMEs.

1.4 Interaction with other initiatives on sustainable finance

The EBA's report on green loans and mortgages interacts with other ongoing regulatory initiatives that are part of the wider sustainable finance strategy of the EU.

Firstly, the Taxonomy Regulation and complementing delegated acts defining technical screening criteria for environmentally sustainable economic activities are firmly linked to the scope of this advice as in its call for advice the European Commission specifically requests the EBA to propose a voluntary definition for green loans based on the EU Taxonomy.

Secondly, credit institutions' disclosures of the green asset ratio in accordance with the Taxonomy Disclosures Delegated Act include credit institutions' loans and advances to large corporates and listed SMEs[20]. These disclosures also cover credit institutions' loans and advances to households for the purpose of residential real estate purchasing, residential real estate renovation and car purchasing under the environmental objective of climate change mitigation. In other words, credit institutions are expected to disclose the Taxonomy alignment of these loans and advances in their green asset ratio as required under the Taxonomy Disclosures Delegated Act starting from 1 January 2024. This creates a link between credit institutions originating and disclosing green loans based on the EU Taxonomy as part of the green asset ratio.[21]

Thirdly, the EuGB requires the alignment of the proceeds of the issuances with the EU Taxonomy. Since a large part of credit institutions' assets are loans and advances[22], the funding received through these issuances are expected to be used largely for lending that, by construction, should be aligned with the EU Taxonomy. As a result, credit institutions' origination of green loans may create a continuity with the bonds issued under the EuGB.

Fourthly, a recast Energy Efficiency Directive[23] and Energy Efficiency Performance of Buildings Directive (EPBD)[24] in December 2021, which are being discussed by the co-legislators at the time of the development of this report, have implications on credit institutions' green loans and advances.

[20] Undertakings that are subject to an obligation to publish non-financial information pursuant to Article 19a or Article 29a of Directive 2013/34/EU (OJ L 182, 29.6.2013, p. 19–76).

[21] Such a link between credit institutions originating green loans to SMEs and disclosure of these loans as part of the Taxonomy Disclosures Delegated Act(OJ L 442, 9.12.2021, p. 1–349) is subject to the upcoming review of the Taxonomy Disclosures Delegated Act. Article 9 of the Taxonomy Disclosure Delegated Act requires a review clause to assess the need for any further amendments with regard to the inclusion of, among others, exposures to undertakings that do not publish a non-financial statement pursuant to Articles 19a or 29a of Directive 2013/34/EU (OJ L 182, 29.6.2013, p. 19–76) in the numerator of key performance indicators of financial undertakings.

[22] EU/EEA average of approximately 62% as of December 2022 (link).

[23] COM/2021/558 final – Proposal for a Directive of the European Parliament and of the Council on energy efficiency (recast) (link).

[24] COM/2021/802 final – Proposal for a Directive of the European Parliament and of the Council on the energy performance of buildings (recast) (link).

These initiatives are relevant in the context of the efforts to renovate the stock of buildings in the EU. This policy initiative is detailed in European Commission Communication 'A Renovation Wave for Europe – greening our buildings, creating jobs, improving lives'[25]. The objective of the policy initiative is to at least double the annual energy renovation rate of residential and non-residential buildings by 2030 and to foster deep energy renovations. Mobilising forces at all levels towards these goals will result in 35 million building units renovated by 2030. The increased rate and depth of renovation will have to be maintained also post-2030 in order to reach EU-wide climate neutrality by 2050. Towards this objective, the recast EPBD introduces the concept of 'mortgage portfolio standards', which is a policy tool aiming to ensure that, over time, credit institutions as well as other mortgage lenders, increase the median energy performance of their real estate portfolios and encourage potential clients to make their immovable properties more energy performant. This strategic objective and supporting policy initiatives create a connection between the ongoing regulatory initiatives and the credit institutions' green lending to households and SMEs.

Furthermore, in the area of mortgages, the review of the MCD[26] provides an opportunity to support markets for green lending by creating the right incentives both on the supply and demand sides of the markets. Regarding the review of the MCD, the EBA received a call for advice from the European Commission on 21 December 2021[27] to investigate possible ways to encourage the uptake of green mortgages at EU level, and on whether climate change-related risks to properties used to secure loans should be taken into consideration in credit institutions' creditworthiness assessment when offering mortgage loans. As a response to the said request, the EBA communicated its opinion on 23 June 2022[28] and reported that the advice related to green mortgages in the context of the MCD review would be incorporated into this mandate on green retail loans and mortgages more generally, while already highlighting the need for a harmonised EU definition of 'green mortgage'.

Similarly, green loans to households would also fall under the scope of the Consumer Credit Directive (CCD) applicable at the time of the drafting of the report[29]. However, due to the finalisation of the legislation following the review of that Directive[30], this report does not assess credit institutions' green loans in the context of the CCD specifically.[31]

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[25] COM (2020) 662 final – Communication from the Commission – A Renovation Wave for Europe – greening our buildings, creating jobs, improving lives (link).

[26] Directive 2014/17/EU of the European Parliament and of the Council of 4 February 2014 on credit agreements for consumers relating to residential immovable property and amending Directives 2008/48/EC and 2013/36/EU and Regulation (EU) No 1093/2010 (OJ L 60, 28.2.2014, p. 34–85).

[27] Call for advice to the European Banking Authority (EBA) regarding the review of Directive 2014/17/EU (Mortgage Credit Directive) (link).

[28] Opinion of the European Banking Authority on the European Commission request for technical advice on issues related to the Mortgage Credit Directive (link).

[29] Directive 2008/48/EC of the European Parliament and of the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC (OJ L 133, 22.5.2008, p. 66–92).

[30] The recast Consumer Credit Directive (Directive (EU) 2023/2225 of the European Parliament and of the Council of 18 October 2023 on credit agreements for consumers and repealing Directive 2008/48/EC) was published in the EU Official Journal on 30 October 2023 with reference OJ L, 2023/2225, 30.10.2023.

[31] As mentioned later in the report, subject to the request from the European Commission the EBA may further assess institutions' green lending in the context of the recast CCD in future review periods of the Directive, according to its Article 46(1)(c).

This report does not aim and overlap with the mandate for the EBA under Article 501c of Capital Requirements Regulation (CRR). Under the said mandate, the EBA is expected to develop reports on whether a dedicated prudential treatment of exposures related to assets or activities subject to impacts from environmental and/or social factors would be justified. Unlike the CRR mandate, the current report on green loans and mortgages does not investigate and provide advice on the risk component in credit institutions' lending activities.

Lastly, transition finance and how credit institutions can facilitate the transition of their counterparties to a low carbon and sustainable economy is outside the scope of this report. There are ongoing initiatives in transition finance such as the European Commission recommendation for the transition to a sustainable economy published in June 2023[32] and the EBA's work on credit institutions' ESG risk management under Article 87a Capital Requirements Directive (CRD), which is expected to include credit institutions' activities in transition finance related to risk management. The analysis presented in this report in relation to transition finance investigates credit institutions' activities in this regard only as far as they are related to the definition of green loans and credit institutions' practices on green lending.

1.5 EBA industry survey

1.5.1 Purpose and scope

The EBA launched an industry survey[33] (February–May 2023) to collect quantitative and qualitative information on credit institutions' green loans and advances, and associated practices. The industry survey was voluntary for the credit institutions to participate, and institutions were asked to submit data on a best effort basis, i.e. where possible.

In this survey, credit institutions were asked to provide information on various areas including:

a. volume, type, purpose, e.g. home renovation, characteristics, e.g. maturity, exposure classification and prudential treatment of secured and unsecured green loans and advances to household and SME borrowers[34];

b. volume, type, purpose, characteristics, exposure classification and prudential treatment of secured and unsecured green loans and advances to NFCs for comparison purposes;

c. standards, definitions and criteria used to identify green loans and advances, such as the EU Taxonomy criteria, industry standards, banks' internal standards;

[32] C(2023)3844 – Commission Recommendation (EU) 2023/1425 on facilitating finance for the transition to a sustainable economy (OJ L 174, 7.7.2023, p. 19 – 46).

[33] EBA industry survey on green loans and mortgages (link).

[34] The definitions of the counterparties included in the industry survey, i.e. households, SMEs and NFCs, are based on Annex V of Commission Implementing Regulation (EU) 2021/451 (FINREP). Accordingly, in the industry survey and the subsequent analysis SME refers to micro, small and medium-sized enterprises as defined in Commission Recommendation C(2003)1422. In the industry survey, for the identification of retail SMEs, credit institutions are asked to refer to paragraph 5(a)(ii) of Article 147 CRR.

d. comparison of characteristics of the green loans and advances with similar non-green loans extended to similar counterparties;

e. characteristics of immovable assets and movable assets, e.g. energy efficiency and the type of vehicle, financed through green loans and advances, and leasing;

f. volume of green funding used to finance green loans and advances;

g. practices to originate and monitor green loans and advances, and to verify their use of proceeds;

h. identified obstacles for the development and growth of green loans markets;

i. potential price and non-price incentives to encourage the uptake of green loans and advances; and

j. established internal processes and procedures related to consumer protection when granting green loans and advances to households.

The survey templates are designed to collect information on credit institutions' green loans and advances separately by the type of counterparty covering households, SMEs differentiating between retail and non-retail segments, and NFCs. The data reference date is 31 December 2022.

In addition to the industry survey, the EBA launched a complementary qualitative questionnaire (September–October 2023) to collect information on the costs and benefits of originating and monitoring green loans for credit institutions. The scope of the questionnaire was limited to green loans to households and SMEs covering three product categories including mortgages, loans to finance the purchase of movable property and other loans such as those financing the purchase of green home equipment and heating systems.

1.5.2 Sample and methodology

The EBA collected responses from credit institutions at the highest level of consolidation in the EU/European Economic Area (EEA). In some cases, credit institutions were also allowed to submit data at the highest level of consolidation in a member state, i.e. sub-consolidated level, where these institutions represent a large share of the banking sector in their member state. [35]

Eighty-three credit institutions across 27 countries participated in the industry survey (Figure 27 in Annex I). The participation institutions cover approximately 52% of the total assets in the EEA banking sector (Figure 28 in Annex I). The level of coverage varies significantly across countries, therefore, country data should be interpreted with caution as differences in the representativeness

[35] Results at EU/EEA-level aggregate statistics exclude data from institutions at sub-consolidated level when the EU/EEA parent entities corresponding to the same group also participate in the survey. Country-level statistics include responses from all credit institutions with the highest level of consolidation in a given member estate. Due to confidentiality reasons, statistics at country-level are not presented when the sample size in the country is less than three.

of the sample across countries may affect the comparability of the data. In terms of business models of the participating institutions, 76% of the sample are universal institutions, operating in various countries. The remaining are other specialised (11%), retail-oriented (8%) and corporate-oriented (4%) institutions.

The findings of the quantitative analysis should be interpreted taking into consideration the following simplifying assumptions, aspects related to data quality and specific methodologies applied when building the metrics shown in the report that together may affect the results:

- The industry survey templates did not provide specific definition or criteria regarding which loans and advances should be reported as green. Consequently, the industry survey gave the credit institutions full flexibility to report their green loans and advances as they are defined on their balance sheets according to their own selected definitions and criteria. While this would reduce comparability, it was important to provide such flexibility for the purpose of this report, i.e. the investigation of existing market practices and proposing a definition for green loans.

- Institutions provided data on a best-effort-basis, i.e. where possible. Also, challenges related to obtaining data for the identification and classification of green loans at the current juncture are known and documented.[36] Overall, 76 credit institutions provided both quantitative data and qualitative information and 7 institutions provided qualitative information only.

- When analysing the results, the EBA applied data quality validations to the data submitted by participating institutions. The sample of institutions included in each analysis has been adjusted to exclude the incomplete data and/or data of low quality, and ultimately to draw robust conclusions. As a result, the sample size in various figures may refer to a different sub-sample of the total sample of participating institutions. In the report, the reference sample is indicated for each figure, accordingly.

- A number of graphs in the analysis provide an overview of the criteria used by the number of institutions to define green loans. Credit institutions might have selected more than one criterion, therefore, the sum of the number of responses provided may not add up to the sample of banks in the analysis.

The analysis presented in this report should be interpreted with these caveats in mind.

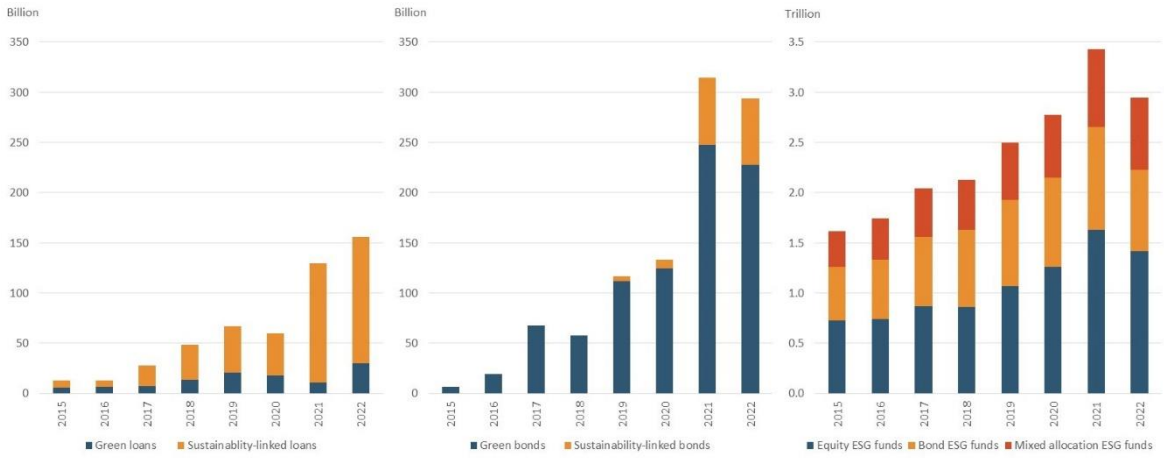
The complementary qualitative questionnaire was addressed to credit institutions that participated in the industry survey. Sixty-five institutions responded to the questionnaire, of which 60 reported having loans to households and 60 reported having loans to SMEs. Four institutions indicated there were no loans granted to households or SMEs.

[36] For example, see the assessment and recommendation of the EU Platform on Sustainable Finance to the European Commission on data and usability in Platform Recommendation on Data and Usability (link).

2. Market overview

Capital markets play an important role in meeting the EU's climate ambitions. Green loans are one type of instrument, among others, to channel the required funding for the transition to a sustainable economy. Sustainable finance products such as green, sustainable and sustainability-linked bonds, and ESG funds still represent a relatively small portion of their respective markets, but their outstanding amount has grown rapidly in recent years (Figure 1). Similarly, the volume of EEA currency-denominated green loans and sustainability-linked loans has been growing since 2015, reaching EUR 156 billion at the end of 2022.[37] Data show that, while the market for green loans follows an increasing trend, it is significantly smaller compared to sustainability-linked loans and other financial products[38], and particularly, its share is decreasing in the overall market for sustainable lending.

Figure 1 Sustainable bank lending and sustainable capital market financing (outstanding amount in EUR billion and AUM in EUR trillion)



Source and notes: (i) Bloomberg data and EBA calculations; (ii) extraction date is 28 June 2023 (loans and bonds) and 10 November 2023 (funds); (iii) yearly outstanding aggregate amount of EEA-currency denominated loans and bonds; (iv) yearly average Asset under Management (AuM) of EEA-domiciled ESG funds; (v) for non-euro currencies, average annual exchange rate corresponding to the year of issuance is applied for conversion; (vi) green product is self-reported by the issuer; (vii) ESG label is self-reported by the fund.

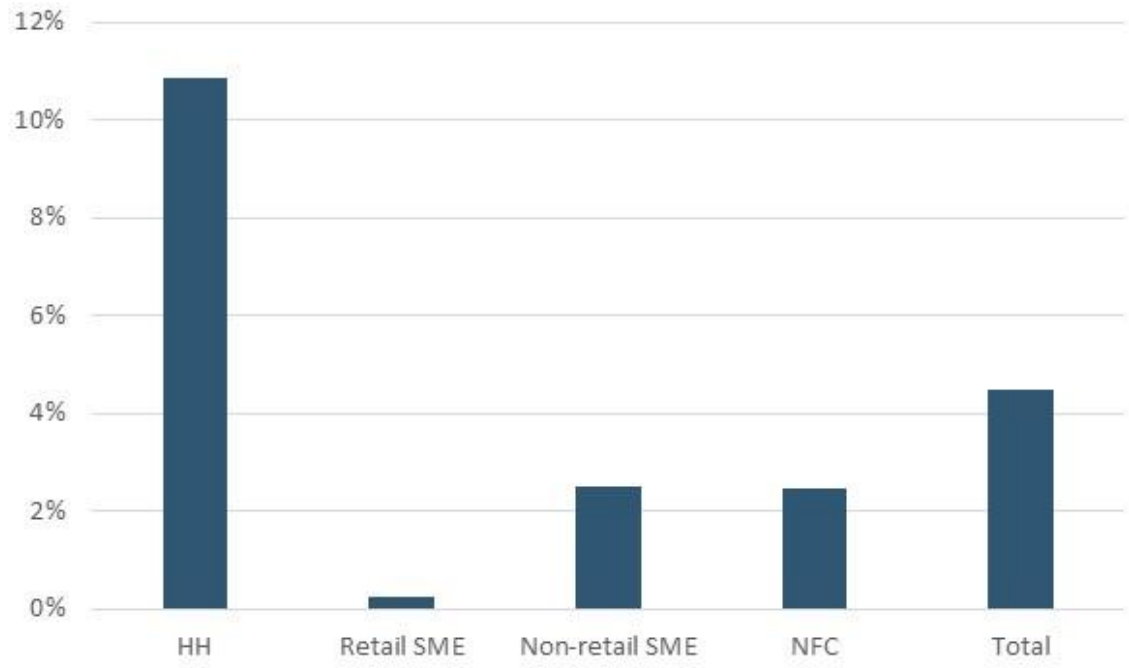
[37] A decrease is observed in 2020 following the breakout of the COVID-19 pandemic and its negative impact on the financial sector and the general economy in the EU.

[38] The difference in the size of markets for loans and other sustainable finance products is somewhat reasonable because while financial and non-financial undertakings as well as sovereigns can issue bonds and invest in funds, only credit institutions and non-bank lenders can grant loans.

2.1 Industry practices in green lending

Credit institutions' green loans and advances are on average 4.5% of their total loans. [39] [40] The share of green loans and advances on institutions' balance sheet varies across asset classes (Figure 2) and institutions (Figure 3 and Figure 31 in Annex I). While the share of green loans and advances in total loans and advances is 11% in household portfolio, it is slightly over 2% in the non-retail SME and NFC segments.[41] Share of green loans in institutions' total lending to retail SMEs is marginal.

Figure 2 Share of green loans in total loans (by business line)



Sample of 83 institutions

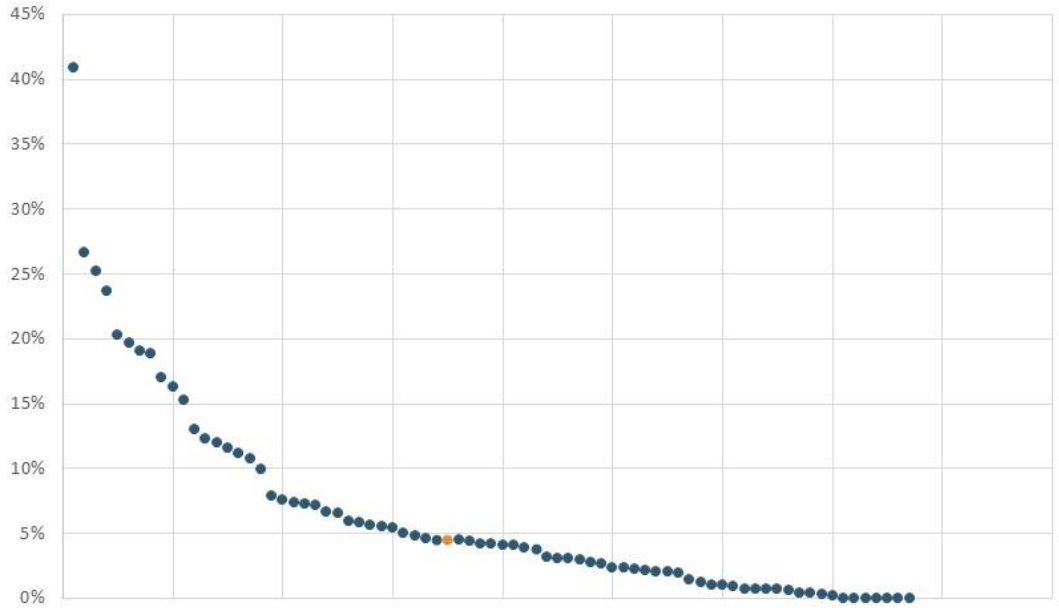
The industry survey covers a volume of green loans of over EUR 722 million on credit institutions' balance sheets, of which 73% is household lending, 21% is NFC lending and the remaining 6% is lending to SMEs. This compares to a total of over EUR 16 billion of total loans, of which 30% is household lending, 38% is NFC lending and the remaining 32% is SME lending. This distribution suggests that, on average, institutions' green portfolio is concentrated on household lending (Figure 29 in Annex I).

[39] Sample average weighted by the total assets of credit institutions.

[40] As mentioned earlier, these green loans are identified by credit institutions in accordance with their selected criteria and definitions for their practices.

[41] The figures refer to unweighted simple means. The medians of 1.5% and 0% for household lending and retail SME lending, respectively, suggest that outliers in the sample drive the simple average.

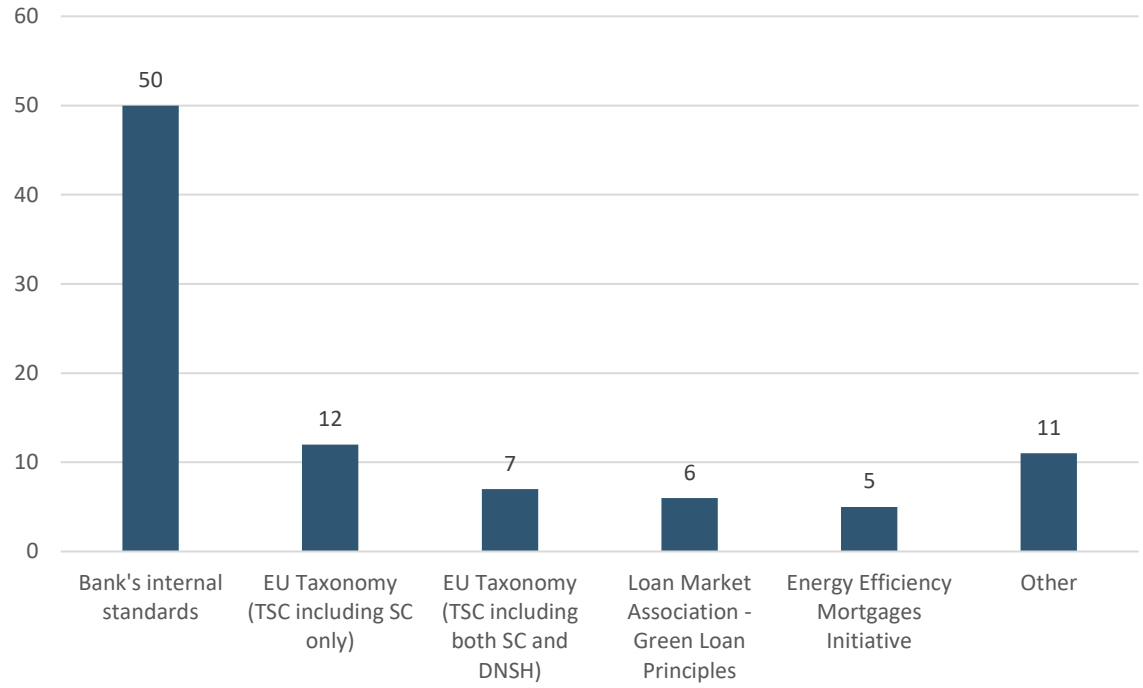
Figure 3 Share of green loans over total loans by institution (x-axis represents institutions)



Sample of 83 institutions

Credit institutions' internal standards are the main criteria for the identification of these green loans and advances across all business lines. The EU Taxonomy and its technical screening criteria are also used by credit institutions to define their green loans and advances to some extent. In the industry survey, 7 institutions indicated they are using the EU Taxonomy, including both the substantial contribution (SC) and do no significant harm (DNSH) criteria as the main standard to define their green loans in at least one business line, while 12 institutions use the EU Taxonomy with only substantial contribution technical screening criteria for their green loans in at least one business line (Figure 4).

Figure 4 Number of credit institutions by standards



Sample of 83 institutions

In general, while credit institutions indicated they are mostly using their internal standards to define their green loans, institutions' internal standards leverage industry standards, e.g. Loan Market Association Green Loan Principles and to some extent the EU Taxonomy requirements. It is reasonable to argue that the relatively low utilisation rate of the EU Taxonomy as a reference for green loans is due to the recency of the framework, as well as data and usability challenges[42] that credit institutions and their borrowers may face in the application of the associated criteria[43].

Institutions tend to formulate their green lending in their overall green (or sustainable) finance framework, as part of their overall sustainable investment, and together with their green funding standards. Among the institutions defining green lending and granting green loans, market practices follow a pattern:

a. identifying lending/business areas where institutions can contribute to sustainable solutions and reduce GHG emissions;

[42] For example, see the assessment and recommendations of the EU Platform on Sustainable Finance to the European Commission on data and usability in the report: Platform Recommendations on Data and Usability (October 2022) (link).

[43] As a response to currently identified challenges related to the usability of the EU Taxonomy, the European Commission took several measures to support the implementation of the Taxonomy criteria and disclosures. These measures are detailed in the Communication from the Commission (COM/2023/317 final) together with the Commission Staff Working Document (SWD/2023/209 final) in June 2023.

b. defining key lending areas[44];

c. establishing a link between lending areas and selected United Nations (UN) Sustainable Development Goals and, where possible, linking to the EU Taxonomy technical screening criteria;

d. defining environmental targets and objectives for the selected lending areas;

e. applying exclusion criteria on certain operations such as activities related to the exploration and production of fossil fuels, deforestation and degradation of forests;

f. evaluating and selecting eligible projects that are in line with the relevant criteria;

g. linking green lending with green funding instruments, e.g. green bond issuances, which are mostly based on industry practices, e.g. International Capital Market Association Green Bond Principles;

h. establishing management of proceeds to eligible projects as defined in the green finance framework set out by the credit institutions;

i. developing regular, e.g. annual reporting on the allocation of proceeds to defined lending areas, eligible projects and loan types, and impact analysis against defined environmental objectives and targets;

j. receiving second party opinion on institution's green finance framework including also green lending activities and practices;

Typically, credit institutions grant green loans for specific purposes where the proceeds are allocated to a specific sector and economic activity. They also provide green general-purpose lending where the use of proceeds is not known. For example, institutions classify green lending when they service the pure-play companies, which are typically the companies deriving a significant part of their revenues, e.g. 90%, from one of the defined sustainable lending areas.

Market analysis shows that the EU Taxonomy technical screening criteria are used in institutions' internal standards defining green loans mostly for five areas including renewable energy, green buildings, clean transportation, recycling and sustainable production, and energy and emission-efficient product. Institutions' green loans are mostly linked to the EU Taxonomy technical screening criteria, in particular substantial contribution, under the environmental objective of climate change mitigation.

[44] Lending areas typically include renewable energy, green buildings, clean transportation, recycling and sustainable production, energy and emission-efficient product, manufacturing, sustainable agriculture, water supply, sewage treatment and waste management, pollution prevention and control, biodiversity and climate change adaptation.

This is not an exhaustive list of lending areas. Credit institutions may be using variation of these lending areas and/or adding others.

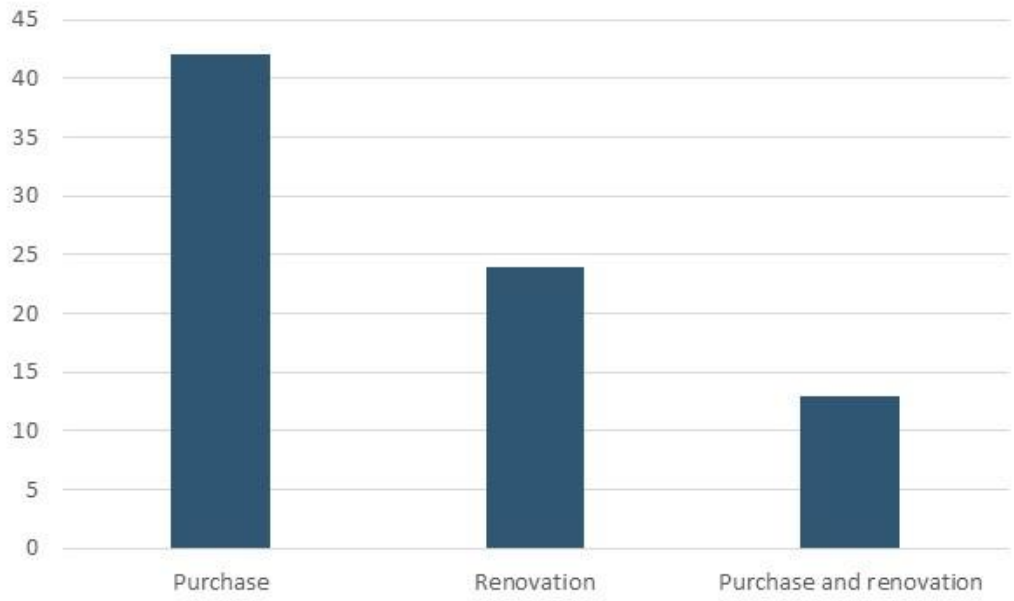
2.1.1 Households

Credit institutions' loans and advances to households identified as green count for 11%. They mostly finance real estate, with over 98% of total green lending in this business line financing residential real estate (RRE), while the remaining 2% is composed of green loans financing movable property, household equipment and appliances[45], credit cards and other green loans (Figure 30 in Annex I).

Loans financing immovable property

Institutions grant green loans to households financing RRE primarily for the purchase of these assets. Institutions also grant, at a lower scale, green loans for renovation of RREs as a standalone product or in combination with their purchase (Figure 5).

Figure 5 Household lending – purpose of loans and advances financing RRE (number of institutions)



In their policies, credit institutions finance and refinance the acquisition, construction and/or refurbishment of these assets typically under green building lending category. For an economic activity to be considered eligible for green financing, credit institutions set out several eligibility criteria which also include some of the technical screening criteria of the EU Taxonomy[46]. Credit institutions eligibility criteria[47] typically include:

[45] This category includes household appliances such as fridges, freezers, dishwashers, washing machines, tumble dryers, televisions, lamps, radiators that are high in energy performance as well as other large equipment such as renewable energy systems including solar photovoltaic systems.

[46] Criteria are mostly those identifying substantial contribution of the economic activity to an environmental objective.

[47] The list of criteria presented aims to capture the most common criteria observed in practices. It is not meant to be an exhaustive list.

a. For construction and acquisition, buildings:

   i. primary energy demand (PED) below 10% (or more) the national nearly zero-energy buildings (NZEB) definition[48];

   ii. energy performance certificate (EPC) with energy rating A or B;

   iii. the top 15% of low carbon building stock in the country;

   iv. compliance with national building codes[49];

   v. minimum certification levels: LEED Gold, BREEAM Excellent or other national sustainable building certification[50].

b. For the refurbishment, buildings:

   i. at least a 30% reduction in net PED or carbon emissions compared to pre-renovation levels;

   ii. two-step improvement in the EPC label together with a reduction of 20% in net PED or carbon emissions compliance with applicable requirements for major renovation.

Energy efficiency and the EPC of the immovable property are the benchmark information in the definition of green loans financing RRE as they are the most used criteria defining these loans. Similarly, the EU Taxonomy technical screening criteria on substantial contribution for relevant economic activities in the category of construction and real estate activities[51] are based on the energy efficiency and EPC of the real estate.[52]

With regard to defining their green RRE loans to households, assessment of the use of proceeds and the energy performance of assets are the most common approaches used by credit institutions (Figure 6). This trend seems to be similar for the leasing of these assets as well, although the conclusion is based on a limited number of credit institutions that provided information about leasing.[53] In practice, the use of proceeds and the energy performance of the asset are complementary approaches in the identification of green loans financing immovable assets because the proceeds are allocated to the financing of the asset, that should also fall under one of

[48] For new buildings constructed or to be constructed after 2020.

[49] For example, in Denmark these are BR08, BR10, BR15, BR18 or any more recent building code. Accordingly, all buildings constructed after 2009 and compliant with BR08 or later have a minimum EPC label B which correspond to the top 15% of the low carbon stock.

[50] For example, DGNB and ÖGNI Gold are sustainable building certifications used in Germany and Austria.

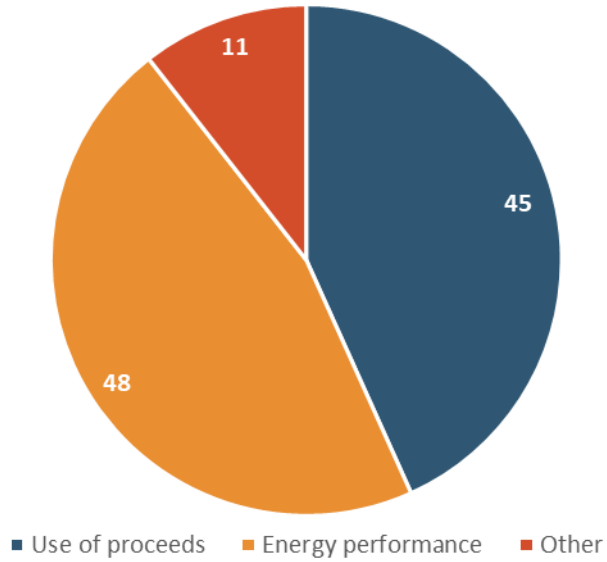
[51] This include economic activities that are directly related to loan purpose such as the acquisition and ownership of buildings, renovation of existing buildings, and construction of new buildings as well as related activities such as installation, maintenance and repair of energy-efficiency equipment.

[52] For example, acquisition and ownership of a building that was erected before 31 December 2020 should have at least EPC class A to be categorised as a sustainable economic activity in accordance with the Taxonomy Regulation.

[53] Ten institutions included information on leasing in their responses.

the selected lending areas of the credit institution, which then is defined by its sustainability credentials, and particularly, its energy performance. Indeed, most credit institutions indicated they are using both criteria for the green definition of their RRE loans.

Figure 6 Household lending – approach used for RRE (number of institutions)

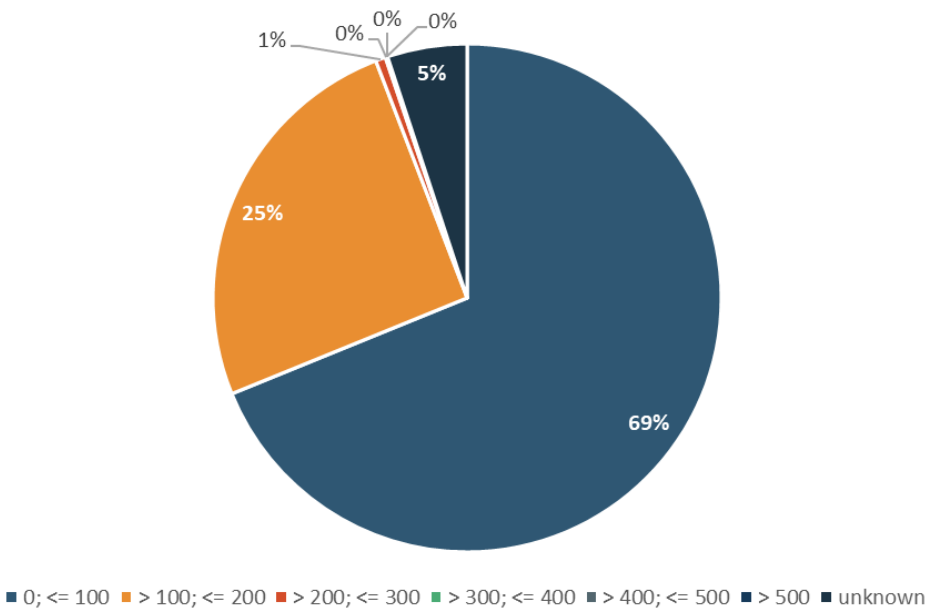


Sample of 60 institutions

Furthermore, a significant share of immovable property classified as RRE and being financed to households[54] has an energy performance of 200 Kilowatt-hour (kWh) per square metre (m^2) or below: approximately 70% of these assets have an energy performance of 100 or less kWh per m^2, while 25% have an energy performance between 100 and 200 kWh per m^2 (Figure 7). This also indicates that only a fraction of household lending financing residential real estate is directed towards buildings with low energy performance, highlighting the currently limited role of credit institutions in financing the transition of the real estate sector.

[54] Regardless of whether these loans are collateralised or not.

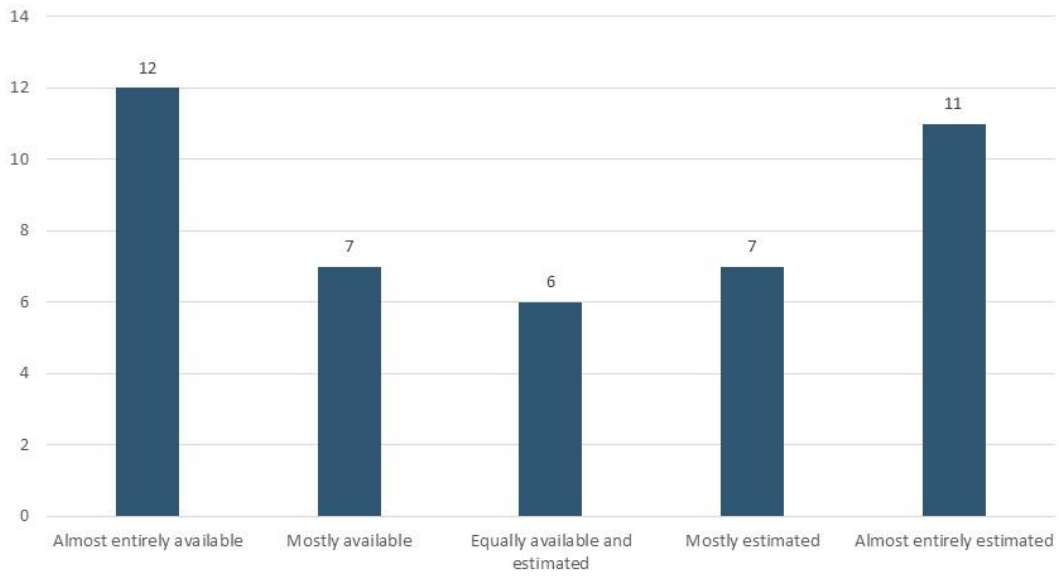
Figure 7 Household lending – energy performance of RRE in kWh per m²



Sample of 45 institutions

Only a small portion of the immovable properties classified as RRE and being financed through green loans has information available on their energy performance. In most cases, credit institutions estimate the energy performance of the assets or this information is not available at all (Figure 8). Although institutions rely on the information on the energy performance of the RRE, about a quarter of the institutions indicated that they do not have EPC available for their assessment, while 5% in the sample stated that they have neither the EPC information nor the data on the energy performance of the RRE.

Figure 8 Household lending – data availability on energy performance of RRE (number of institutions)



Approximately 75% of the credit institutions started collecting EPCs for the assets financed through new loans to households at the loan origination, and 69% of the credit institutions also collect this information for the existing stock of loans. The EPC is collected through various sources. Credit institutions typically collect the EPCs and relevant information for the origination of new green loans from their (prospective) borrowers, in the collateral valuation process through the appraiser's report, public registers[55] and external data providers[56]. This is similar for the existing green loans. Credit institutions rely on the same sources of information to close data gaps related to the stock. For these loans, credit institutions collect this information in the events of loan refinancing and renegotiation, as well as in the loan monitoring process. Some credit institutions in the industry survey emphasise the difficulties related to collecting EPC data. For example, in some countries obtaining the EPC is expensive for borrowers and for this reason they offer financial incentives such as cashback or home renovation incentives. Some credit institutions point out that public registers may not exist at the central or regional level or, when they exist, the information may not be accessible in the absence of certain authorisation, or information on the public registers may be incomplete since it partially covers the stock of existing buildings.[57]

Loans financing movable property

Green loans to households including those financing movable property represent approximately 1% of the total amount of green loans to households (Figure 30 in Annex I).

Credit institutions grant green loans to households for the purchase, rental, and leasing of zero direct-emission or low-emission[58] vehicles, e.g. cars, and personal mobility devices, e.g. bicycles and electric scooters. Approximately 90% of the green loans and leases to households financing movable property finance passenger cars. The energy power of over 60% of these vehicles is full electric and the remaining 40% is mostly hybrid, e.g. electric and fuel mix.

In green loans financing movable property, market practices overlap with the technical screening criteria on substantial contribution of the EU Taxonomy for the economic activity related to the purchase, financing, rental, leasing operation of transport vehicles for passengers and road passenger transport.[59]

[55] Credit institutions from the following countries stated public registers as a source of information on EPCs (together with other sources or as the only source): Bulgaria, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany (regional database), Greece, Hungary, Italy, Lithuania, Malta, the Netherlands, Poland, Portugal, Spain (regional database), Sweden.

[56] External data providers offer both actual EPC information and estimated data in the absence of the former.

[57] The recast EPBD is expected to support the credit institutions in their access to public registers.

[58] For example, below 50gCO2e/km.

[59] This corresponds to the economic activity 'Urban and suburban transport, road passenger transport' under Transport category.

Loans financing other activities and assets

In addition to green loans and advances financing immovable and movable property, credit institutions finance other household equipment which includes among others, the installation, maintenance and repair of energy efficiency equipment, charging stations for electric mobility devices, and on-site renewable energy technologies. This lending segment represents just over 1% of institutions' green loans to households. In this case, some market practices are partially aligned with the EU Taxonomy technical screening criteria of installation, maintenance, and repair of energy efficiency equipment[60].

2.1.2 Retail SMEs

Less than 1% of credit institutions' loans to retail SMEs are classified as green. The green portfolio towards retail SMEs is more diversified than towards households. The share of green loans to retail SMEs financing immovable property[61] is over 42% in green retail SME portfolio, lower than that of households. Green loans financing movable property[62] is over 27% in credit institutions' green portfolio followed by other green loans with known use of proceeds (19%) and unknown use of proceeds (11%) (Figure 30 in Annex I).

Loans financing immovable property

Similar market practices used by credit institutions to define green loans to households financing RRE are applied also when defining green retail SME lending financing immovable property. To be considered eligible for green lending, credit institutions set out several eligibility criteria which also include partially technical screening criteria of the EU Taxonomy (see above).

Assessment of the use of proceeds and the energy performance of assets are the most common approaches used by credit institutions when defining their green RRE and commercial real estate (CRE) loans to retail SMEs (Figure 9).

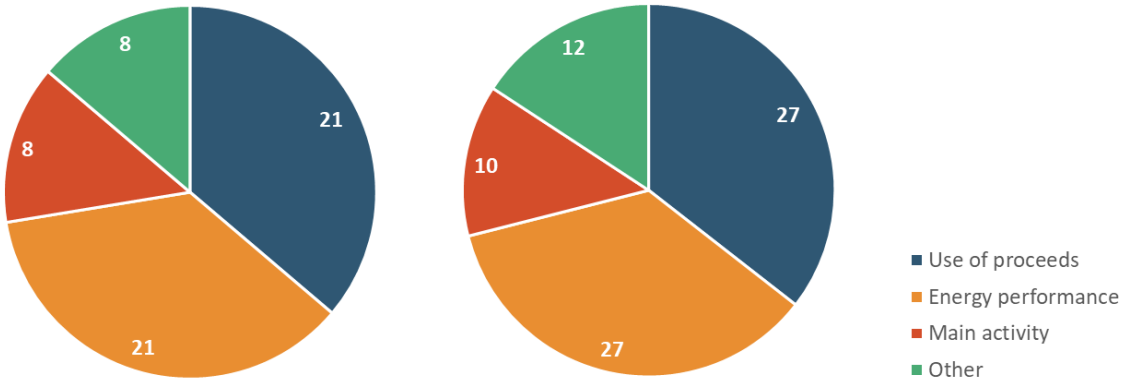
In most cases credit institutions use both criteria together to define their green loans financing these assets. Furthermore, institutions seem to use the assessment of the main economic activity of the borrower as an approach to define their green loans to retail SMEs financing RRE and CRE. This finding is also in line with the general market practices where institutions grant loans towards the pure-play companies which derive a significant part of their revenues from one of the defined sustainable lending areas. In this approach, one reason for credit institutions to focus on the main economic activity of the borrower may be to apply a simplified process for retail SMEs.

[60] These systems should be rated in the highest two populated classes of energy efficiency in accordance with Regulation (EU) 2017/1369 of the European Parliament and of the Council of 4 July 2017 setting a framework for energy labelling (OJ L 190, 28.7.2017, p. 1) and delegated acts adopted under that Regulation.

[61] Green loans in this category include those financing RRE, CRE as well as project finance related to these assets.

[62] Loans financing movable property and project finance related to movable property.

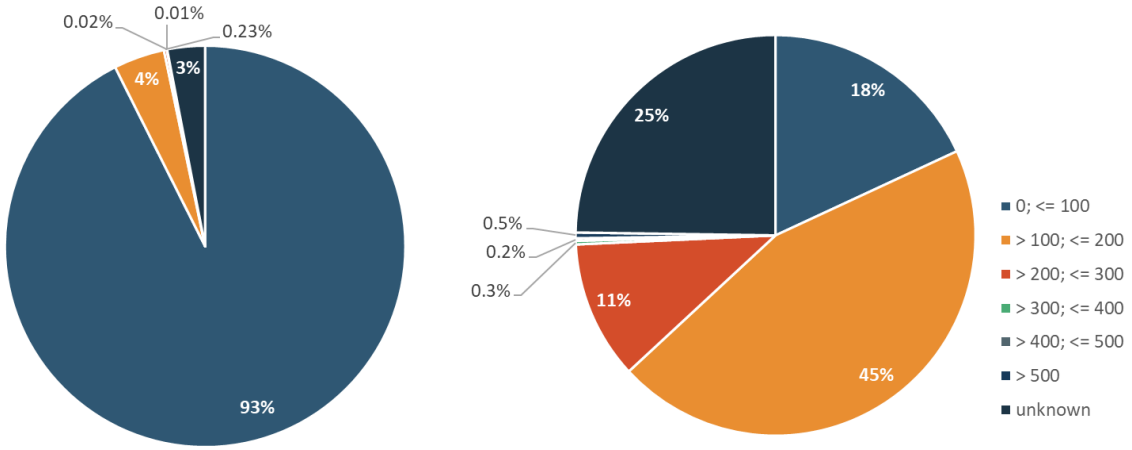
Figure 9 Retail SME lending – criteria used (number of institutions) (RRE, left – CRE, right)



Sample of 36 institutions *Sample of 43 institutions*

Energy efficiency and the EPC of the immovable property are the key information in defining green real estate lending to retail SMEs. A significant share of the immovable properties classified as RRE and being financed by retail SME lending63 has an energy performance of 100 kWh per m2 or below with approximately 93% of the institutions. Four percent of RREs financed through green loans have energy performance of between 100 and 200 kWh per m2. The outlook is different for institutions' green lending to retail SMEs financing CRE where energy performance is mostly either between 100 and 200 kWh per m2 or unknown (Figure 10).

Figure 10 Retail SME lending – energy performance (RRE, left – CRE, right) in kWh per m²



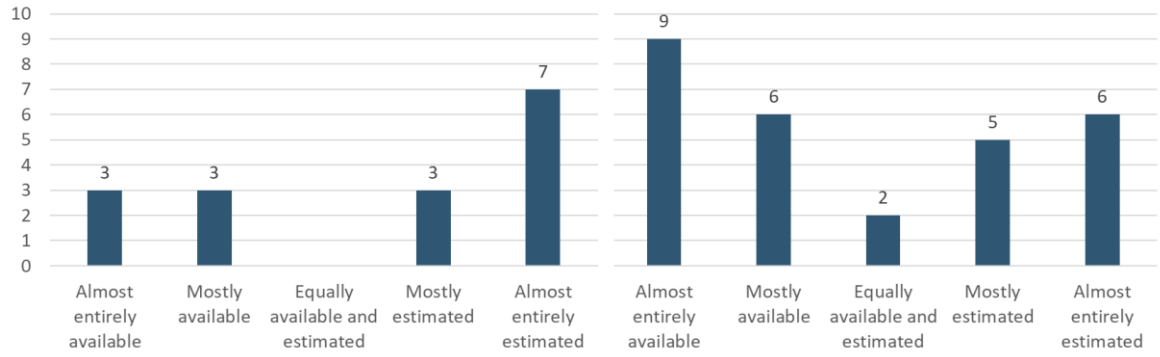
Sample of 36 institutions *Sample of 43 institutions*

The lack of available information regarding the energy performance of these assets is significant for the RREs financed in the retail SME lending. While the energy performance of the RREs is mostly

63 Regardless of whether these loans are collateralised or not.

estimated by the institutions or the information is not available at all, such information seems to be mostly available for CREs (Figure 11).

Figure 11 Retail SME lending – data availability on energy performance (number of institutions) (RRE, left – CRE, right)



About 67% of the credit institutions started collecting EPCs for the assets financed through new loans and in the existing stock of loans to retail SMEs, while only 50% of the institutions collect this information for the assets financed through the stock of existing loans. The sources of EPCs used by the credit institutions for their green lending to retail SMEs is similar to the ones presented for household lending earlier in the report.

Loans financing movable property

Regarding the credit institutions' loans to retail SMEs financing movable property[64], 27% of the green loans to retail SMEs finance this type of asset. The identification of green loans to retail SMEs financing movable property is comparable with that of household lending. While assessing the use of proceeds and/or the energy performance of the movable property is the most used approach among institutions to identify their green loans financing movable property, some institutions also assess the main economic activity of the borrower or use other methods. Credit institutions grant loans to retail SMEs for the purchase, rental, and leasing of zero direct-emission or low-emission vehicles, e.g. passenger vehicles and freight trucks as well as personal mobility devices. In addition, credit institutions also grant green general-purpose loans to companies where these companies generate a large part of their revenues from economic activities related to clean transportation category.

[64] Green loans in this category include those financing movable property as well as project finance related to these assets.

Market practices partially overlap with the technical screening criteria on substantial contribution of the EU Taxonomy for the economic activity related to the purchase, financing, rental, leasing operation of transport vehicles for passengers and road passenger transport.[65]

Loans financing other activities and assets

In addition to green loans and advances financing immovable and movable property, credit institutions finance retail SMEs for other activities. Green lending to retail SMEs based on the use of proceeds other than those financing immovable property and movable property make up 19% of institutions' green portfolios. Similarly, over 11% of the green portfolio in the business line of other green lending to retail SMEs where the use of proceeds is not known, is expected to be mostly based on institutions' general lending to pure-play companies.

2.1.3 Non-retail SMEs

Over 2% of credit institutions' loans to non-retail SMEs are classified as green. Comparable to credit institutions' green retail portfolio, real estate lending drives institutions' total green loans to non-retail SMEs. The share of green CRE lending[66] to non-retail SMEs is 54% of institutions' green non-retail SME portfolio. Green loans financing movable property[67] is only 4%. Institutions' other green loans to non-retail SMEs include other green loans with known use of proceeds (27%) and those with unknown use of proceeds (14%) (Figure 30 in Annex I).

Loans financing immovable property

Green loans to non-retail SMEs financing CRE are granted mostly for the acquisition, construction and/or refurbishment of these assets typically under the green building lending category. Standards and eligibility criteria for green loans in the retail segments are also applied for green CRE loans to non-retail SMEs.

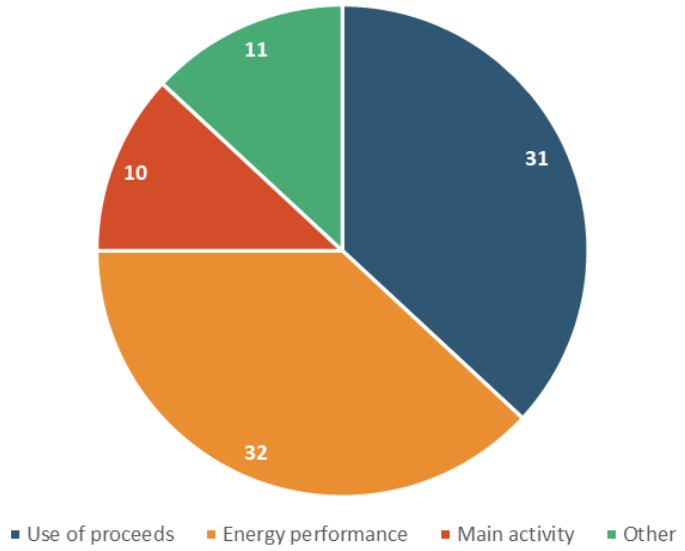
As for the retail SME portfolio, assessment of the use of proceeds and the energy performance of assets are the most common approaches when defining their green CRE loans to non-retail SMEs (Figure 12). In most cases, credit institutions use these criteria together to define their green loans financing CREs. In addition to this, institutions seem to use the assessment of the main economic activity of the borrower as an approach to define their green loans to non-retail SMEs financing CRE. This finding is also in line with the general market practices where institutions grant loans to the pure-play companies which derive a significant part of their revenues from one of the defined sustainable lending areas. Credit institutions may also be using this approach to apply a simplified process for non-retail SMEs.

[65] This corresponds to the economic activity 'Urban and suburban transport, road, road passenger transport' under the Transport category.

[66] This figure includes CRE lending and project finance related to CRE.

[67] Also includes project finance related to movable property.

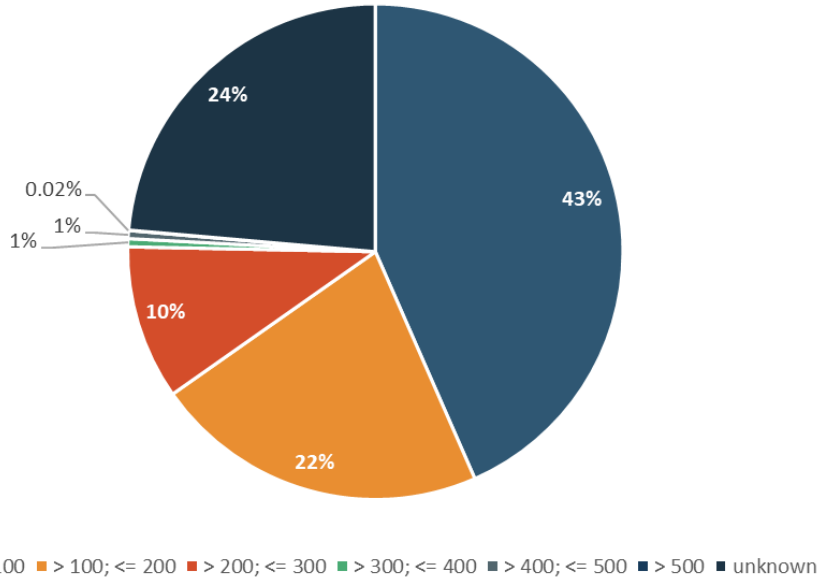
Figure 12 Non-retail SME lending – criteria used for CRE (number of institutions)



Sample of 45 institutions

Approximately, 43% of the CREs financed through green loans have the energy performance 100 or less kWh per m^2, and 22% of these assets have an energy performance of between 100 and 200 kWh per m^2 (Figure 13). The energy efficiency is unknown for approximately 24% of the assets. The share of assets without the information on their energy performance is significantly higher compared to assets financed in the institutions' green retail portfolios.

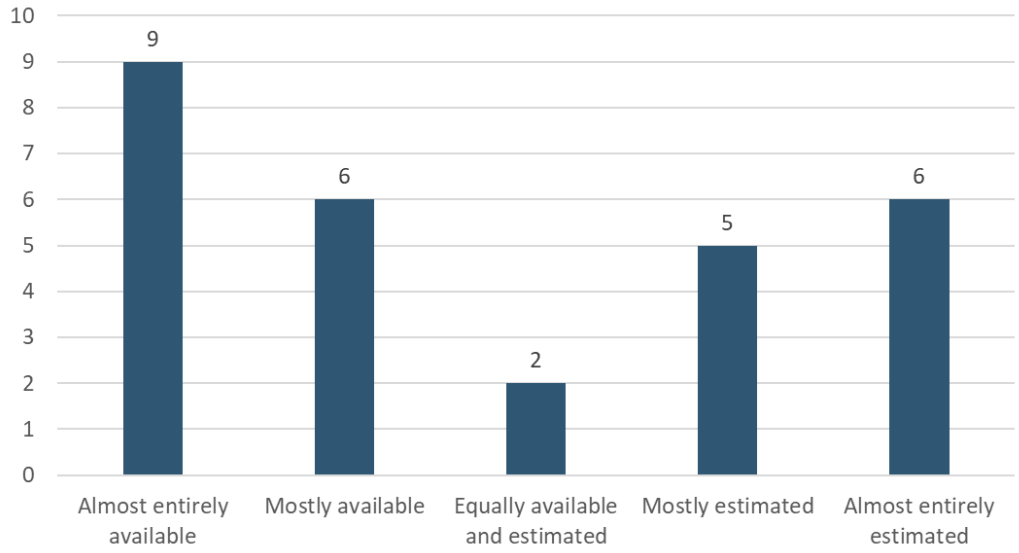
Figure 13 Non-retail SME lending – energy performance of CRE in kWh per m^2



Sample of 29 institutions

Regarding the availability of information on the energy performance of these assets, there is not specific pattern. The number of estimates and data availability is almost equally split in the markets (Figure 14).

Figure 14 Non-retail SME lending – data availability on energy performance of CRE (number of institutions)



About 71% of the credit institutions collect information on the assets they finance at loan origination for non-retail SMEs. The share of credit institutions collecting EPCs for the assets financed through the stock of existing loans to non-retail SMEs is 59%. The sources of EPCs used by the credit institutions for their green lending to non-retail SMEs is similar to those presented for household and retail SME lending earlier in the report.

Loans financing movable property

Regarding green loans financing movable property, the share is relatively small in institutions' green portfolio towards non-retail SMEs. The approach for the identification of green loans to non-retail SMEs financing movable property is similar to that of retail SME lending. While assessing the use of proceeds and the energy performance of the movable property is the most used among institutions to identify their green loans financing movable property, some institutions also assess the main economic activity of the borrower or use other approaches.

About the type of movable property being financed, credit institutions typically grant green loans to finance the production, purchase, rental and leasing of zero direct-emission or low-emission vehicles, e.g. passenger vehicles, personal mobility devices, buses, trains and ferries as well as freight trucks. In addition, credit institutions may also grant green loans to finance these and other types of movable assets to pure-play companies where these companies derive a large part of their revenue from economic activities related to clean transportation category.

Vehicles are the most common type of movable asset that institutions finance through their green loans (67%). The criteria used to define green loans in the financing of these vehicles tend to overlap

with the technical screening criteria of the EU Taxonomy for the economic activity related to the purchase, financing, rental, leasing operation of transport vehicles for passengers and road passenger transport.

Loans financing other activities and assets

In addition to green loans and advances financing immovable and movable property, credit institutions finance non-retail SMEs for other activities. Green lending to non-retail SMEs based on the known use of proceeds other than those financing immovable property and movable property are considerable (27%) in institutions' green portfolios. Similarly, other green lending to retail SMEs where the use of proceeds is not known (14%) is expected to be mostly based on institutions' lending towards pure-play companies.

2.1.4 Non-financial corporates

Over 2% of credit institutions' loans to NFCs are classified as green. Approximately 44% of these loans correspond to the category 'other loans', i.e. excluding loans financing immovable and movable property, with known use-of-proceeds. Institutions' green loans to NFCs financing CRE[68] is over 28% in their green portfolio followed by green lending to finance movable property[69], which has a share of 13% (Figure 30 in Annex I).

Loans financing immovable property

Green CRE loans is the second most common product type in the NFC green lending (over 28%)[70]. For such loans, the use of proceeds and energy performance of the asset are the approaches mostly used to assess green identification of the loan (Figure 15).[71] The finding is comparable with the market practices in other business lines.

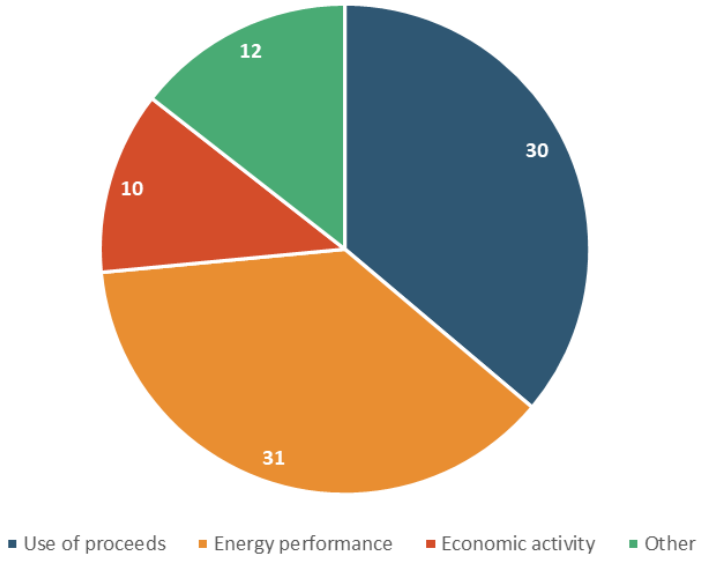
[68] Including project finance related to CRE.

[69] Including project finance related to movable property.

[70] Including green loans financing CRE and green project finance related to CRE.

[71] This trend is similar for the leasing of these assets, although results should be interpreted with caution as a limited number of institutions reported having exposures to leases to NFCs.

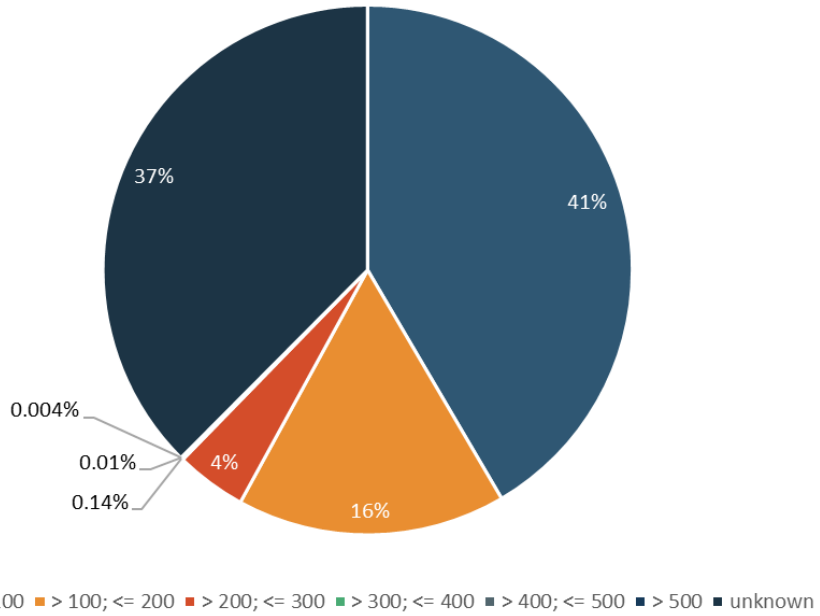
Figure 15 NFC lending – criteria used for CRE (number of institutions)



Sample of 46 institutions

Regarding the characteristics of immovable property being financed[72], a large part (41%) of the CREs have an energy performance of 100 kWh per m^2 or below. However, lack of information on the energy performance of these assets is also prevalent (Figure 16). Institutions almost equally obtain and estimate the information on the energy performance of these CREs (Figure 17).

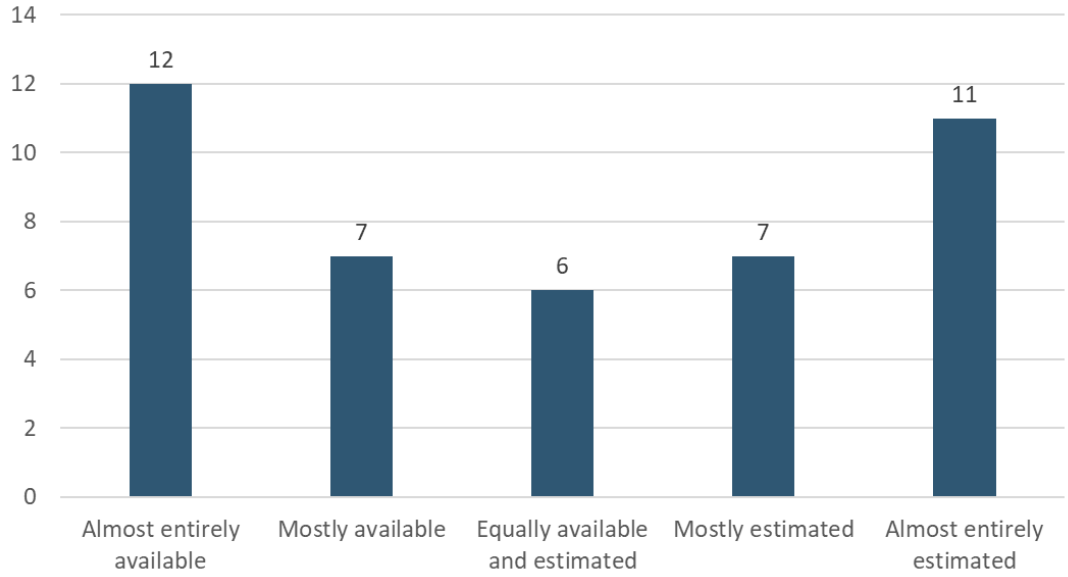
Figure 16 NFC lending - energy performance of CRE



Sample of 27 institutions

[72] Regardless of whether these loans are collateralised or not.

Figure 17 NFC lending – data availability on energy performance of CRE



About 70% of credit institutions collect information on the assets they finance at loan origination for non-retail SMEs, while this share is 60% in the stock of existing loans. Similar findings on the source of information for EPCs for the assessment of green immovable properties in other business lines, as presented above in the report, apply to large corporates.

Loans financing movable property

Green loans to NFCs financing movable property are the third most common product in this segment. Green loans financing movable property represent 13% of institutions' total green loans in this business line. Credit institutions grant green loans to NFCs for the production, purchase, rental and leasing of zero direct-emission or low-emission vehicles, e.g. passenger vehicles, personal mobility devices, buses trains and ferries as well as freight trucks. The practice is similar to the one applied for green loans to non-retail SMEs. In some cases, institutions also include in their green lending category vehicles solely using advanced biofuels or renewable liquid and gaseous transport fuels[73]. A large part of green loans to NFCs in this product type finance vehicles (91%), followed by machinery equipment (4%). Similarly, vehicles (77%) and machinery equipment (22%) are the most common products leased to NFCs.

Market practices overlap with the technical screening criteria of the EU Taxonomy for the economic activity related to the purchase, financing, rental, leasing operation of transport vehicles for passengers and road passenger transport.[74]

[73] Excluding liquefied natural gas.

[74] This corresponds to the economic activity 'Urban and suburban transport, road, road passenger transport' under the Transport category.

Loans financing other activities and assets

In general, green use-of-proceeds loans based other than on those financing immovable property and movable property represents a more significant share of green loans for non-retail lending (non-retail SMEs and NFCs) than retail lending (households and retail SMEs). The share of these loans in the NFC segment is significantly high. As in the case of other non-retail lending, credit institutions may be financing large corporates' capital and operational investment and grant general purpose loans to pure-play companies.

2.1.5 Analysis of the outlier credit institutions in the sample

The comparison of the selected credit institutions at the opposite far-ends of the distribution, i.e. outliers, in terms of the ratio of green loans in total loans (Figure 31 in Annex I) provides further evidence for the market practices in green lending.[75]

The analysis shows that credit institutions with a higher share of green loans in their total loans tend to have put in place and follow a defined green finance framework.[76] These institutions design their frameworks to make a clear link between green funding and green lending as well as to set out sustainability criteria for the economic activities associated with these funds. This suggests that the funding raised through green bonds are typically allocated towards green lending activities. Institutions with a higher share of green loans on their balance sheets usually complement their green finance framework with a second-party opinion. Also, a given credit institution's commitment in pursuing a green finance strategy seems to have a role in the higher share of green loans in their overall lending.

When identifying economic activities eligible for green lending, both institutions with a high level of green loans and institutions with a low level of green loans tend to collect additional information at loan origination for green loans compared to similar non-green loans. However, institutions with a high level of green loans tend to implement standardised processes for the collection and monitoring of relevant information.

Economic activities eligible for green lending are identified based on clearly defined criteria which are usually mapped into sustainability targets, e.g. UN Sustainable Development Goals, and which encompass on a best-effort-basis the EU Taxonomy technical screening criteria for a substantial contribution to the climate change mitigation objective.

[75] Outlier sample in this analysis incudes 20 credit institutions: 10 credit institutions with the highest share of green loans in total loans and 10 credit institutions with the lowest share of green loans in total loans. At the lower end of the distribution, when credit institutions have the same ratio, e.g. 0%, credit institutions with the larger amount of loans in a given business line, measured as a ratio of loans in a business line to total loans, are included in the outlier sample.

[76] This finding is regardless of the business model of the credit institutions and the specificities of the financial products they offer. In some cases, the credit institution is a specialised bank operating in a specific area serving certain types of borrowers. In such cases, while the credit institutions may have implemented a framework, the criteria to assess the sustainability of the economic activity may be challenging and, hence, loans being offered are not eligible for green lending.

Availability of public data registers and the presence of public schemes do not appear to be a key difference between the outliers. Yet, some institutions with a high level of green loans include explicitly applicable public schemes in their green finance framework.

Price and non-price incentives that institutions put in place to support the uptake of green loans seems to be similar in the practices of outlier institutions at the two far ends of the distribution.

2.1.6 Costs and benefits of originating and monitoring green loans

On the one-off costs associated with green loan origination and monitoring process, approximately 40% of the institutions indicated that they experience (or would experience) high to moderate one-off costs while the remaining 60% indicated low to negligible one-off costs (Figure 18).[77] Similar results are observed for green loans to SMEs (Figure 19).

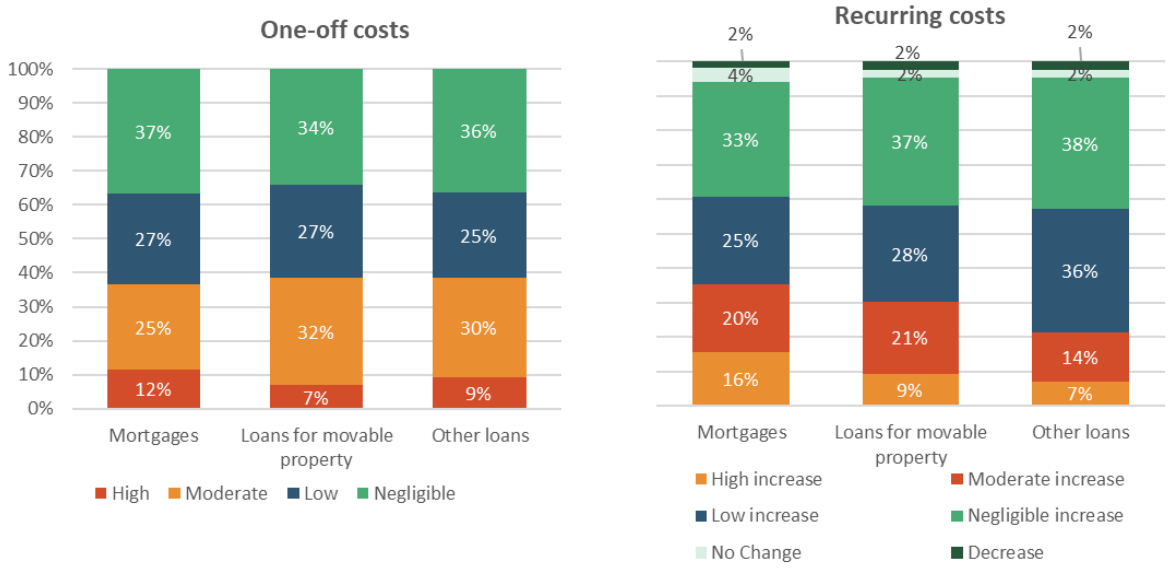
Recurring costs associated with green loan origination and monitoring process seem to be somewhat lower that one-off costs in both household and SME segments. Around 35% of the institutions indicated that they face (or would face) high to moderate recurring costs due to the introduction of green mortgages. The percentage decreases for household loans financing movable property (30%) and for other loans (21%). Also, between 4% and 6% of the institutions indicated they expect no change or even a decrease in recurring costs after introducing green loans (Figure 18).

In the SME portfolio, the expected increase in recurrent costs due to the introduction of green loans seems to be similar to the household portfolio in the case of real estate lending. However, a larger share of institutions indicated that they face (or would face) a high to moderate increase in their recurrent costs for loans financing movable property (30%) and other loans (21%). Also, no credit institution indicated an expected decrease in their recurrent costs after originating green loans while around 6% indicated they expect no change.

Credit institutions indicate setting up necessary IT arrangements, implementation of the green lending strategy and collecting relevant information especially on the stock of existing loans as the main sources of (existing or potential) one-off costs associated with green loans to households. This is similar for recurring costs except for IT costs as it generates lower recurring costs compared to one-off costs. Investment in in-house expertise and skills and recruitment of additional staff or infrastructure seem to be a less significant source for both types of cost. While the overall picture is similar for SME lending, institutions also highlight collecting information for new loans, implementing the institution's green lending strategy as a more substantial source for recurring cost than IT costs. Further analysis on the sources of costs associated with green lending is included in Annex II to the report.

[77] As per the questions included in the questionnaire, costs to credit institutions are indicated in relation to operating expenses, i.e. as an estimated percentage of annual operating income.

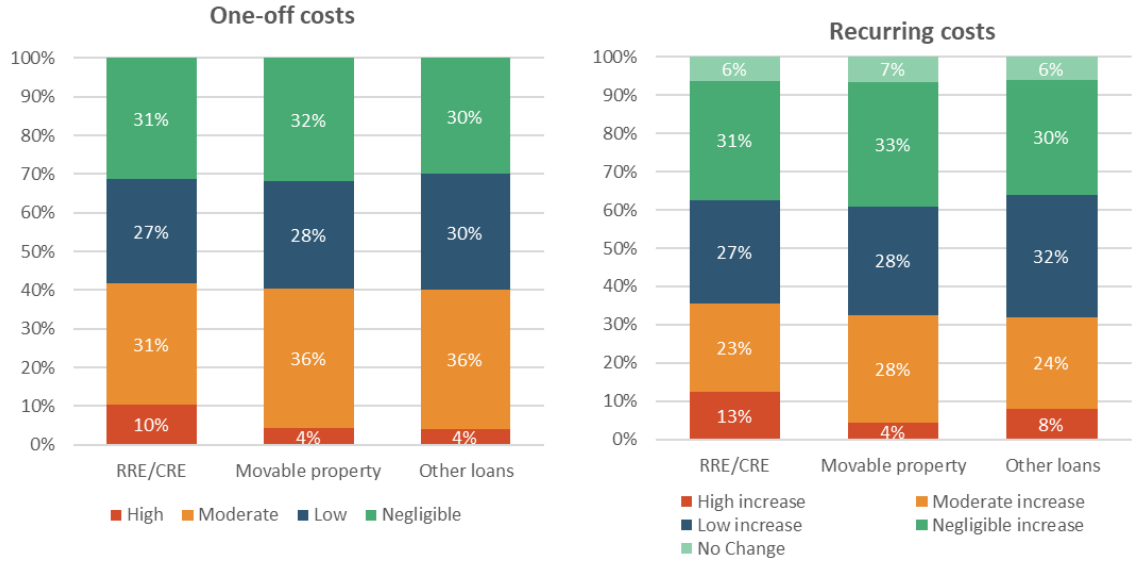
Figure 18 One-off and recurring costs of originating and monitoring green loans to households by product (percentage of responses)



Sample of 60 institutions

Note: For each product, the statistics displayed exclude those credit institutions reporting 'NA' for a given type of product. NA reporting means the credit institution does not have the information or it does not originate a given type of product.

Figure 19 One-off and recurring costs of originating and monitoring green loans to SMEs by product (percentage of responses)



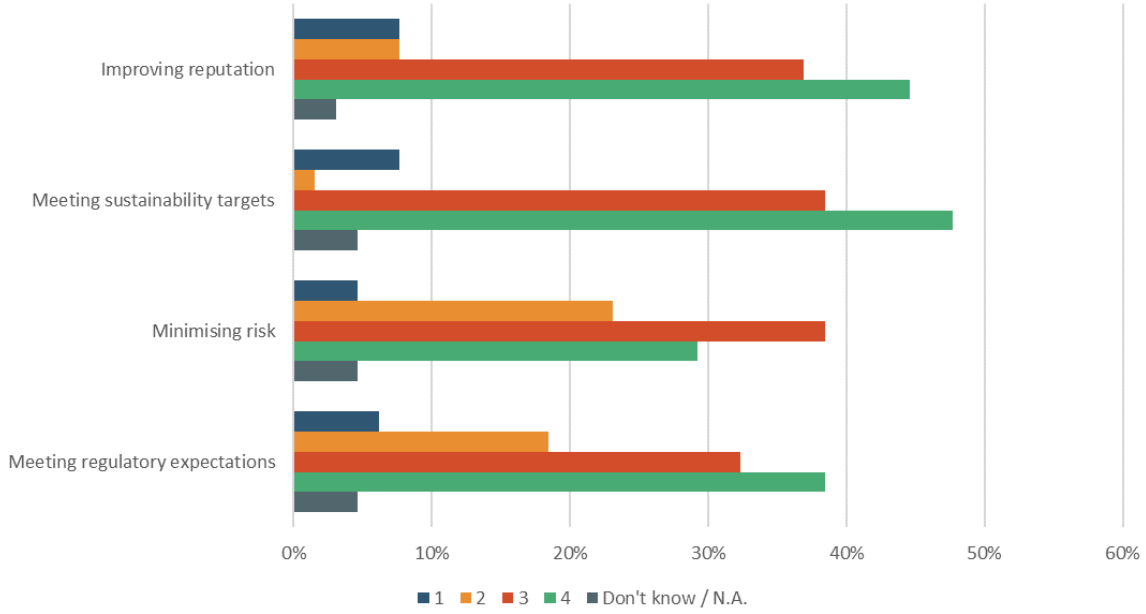
Sample of 60 institutions

Note: For each product, the statistics displayed exclude those credit institutions reporting 'NA' for a given type of product. NA reporting means the credit institution does not have the information or it does not originate a given type of product.

On the benefits of issuing green loans, most of the institutions agree that originating green loans would help with meeting sustainability targets (86% of institutions), improve reputation vis-à-vis investors and borrowers (81%), help with meeting regulatory requirements such as the Taxonomy

disclosure requirements (71%) and minimise risks such as climate change-related transition risk (68%) (Figure 20). Further analysis on the benefits associated with green lending is included later in the report and in Annex II.

Figure 20 Benefits of originating green loans



Sample of 60 institutions

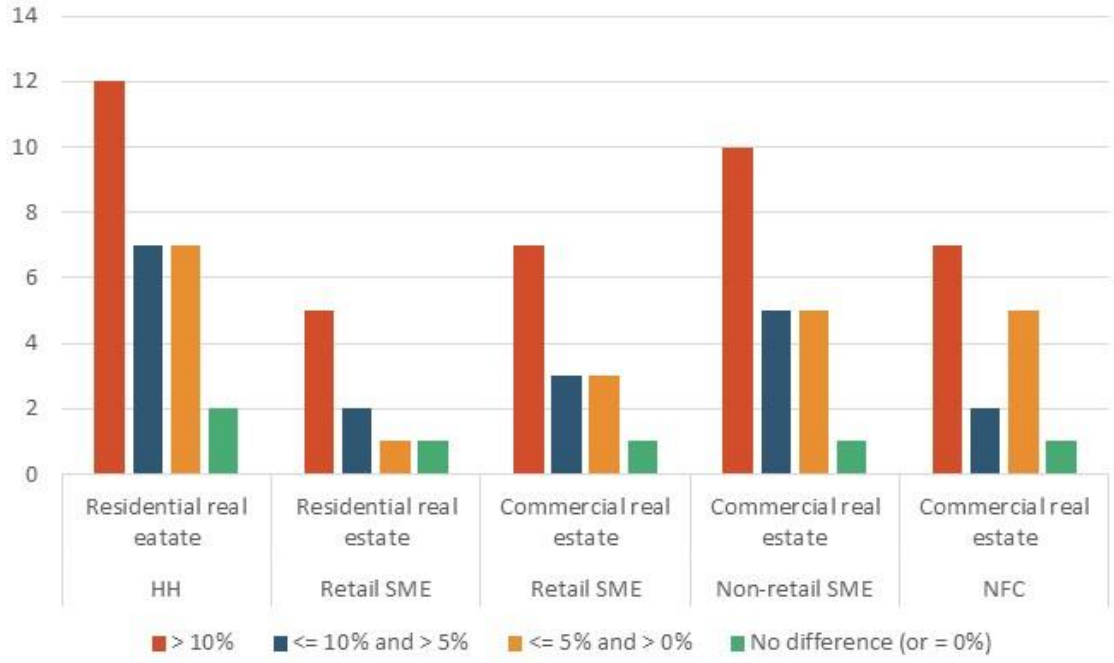
Note: Institutions are asked to what extent they agree with the benefits of originating green loans for credit institutions, being 1 'Not at all', 2 'To some extent but not much', 3 'To a reasonable extent', 4 'To a great extent'.

2.1.7 Expected future trends in green loans

Credit institutions expect green loans to continue growing in the next 24 months, and no credit institution expects contraction or stagnation in green loan markets. This is also in line with the trends we observed in market data (see Figure 1). Especially in household lending and SME lending, the expected future growth in the green portfolio is driven by immovable property. Most credit institutions report more than 10% increase in green loans to households and SMEs financing immovable property in the next 24 months (Figure 21).

The expectation is somewhat similar for other green financial products such as green loans financing movable property and project finance related to immovable and movable property. The volume of other financial products towards households such as green loans financing household equipment and credit cards is expected to grow marginally or remain constant.

Figure 21 Credit institutions' expectations on the growth in the amount of green loans and advances on their balance sheets (number of credit institutions)



Future expected trend for green lending to NFC is somewhat similar. In addition to this, credit institutions also foresee a significant increase in coming years in other green loans to NFCs where the use of proceeds is known and other green loans where the use of proceeds is not known.

While the market for green loans has been following and is projected to follow a growing trend, regulatory requirements will also be key to support market growth. Credit institutions are already required to calculate and disclose their green asset ratio[78] and the legislative proposal on the recast EPBD will encourage credit institutions to increase their funds towards immovable property renovation substantially. This is expected to lead to an increasing volume of green loans, especially to households and SMEs and, at the same time, the potentially increased use of the EU Taxonomy beyond meeting regulatory requirements. Yet, expected future trends in green lending does not provide the entire spectrum in the area of sustainable finance. A recent analysis[79] of European firms' perception of climate change risks, as well as their investment plans and on their financing needs to mitigate the impacts of climate change, identifies several obstacles which hamper access to financing of investment necessary to comply with stricter climate standards. In this analysis, most SMEs and large corporates indicate that too high interest rates or financing costs and insufficient public subsidies are significant obstacles to securing climate-related investment.

[78] See Section 1 of this report for a more detailed explanation on this point.

[79] Climate change and euro area firms' green investment and financing – results from the SAFE (Survey on the Access to Finance of Enterprises). Published as part of the ECB Economic Bulletin Issue 6, 2023.

2.1.8 Exposure classification of green loans

The analysis of market practices does not indicate a specific pattern in the exposure classification of green loans due to their sustainability features. The findings suggest that green loans are not treated differently from other exposures in the prudential framework due to their sustainability features. Exposures associated with green lending are classified mostly under the standardised approach (SA). The tendency is valid for all business lines but varies from 91% (of participating credit institutions) for credit cards for households to over 40% for CRE lending to non-retail SMEs and large corporates. In addition to the SA, credit institutions also tend to classify their green exposures under the foundation internal ratings-based (F-IRB) approach and advanced internal rating-based (A-IRB) approach which is more prominent in credit institutions' green lending towards non-retail SMEs and large corporates compared to retail segments. Slotting approach has been indicated by credit institutions as the primary exposure class for green project finance related to immovable and movable properties in a few cases (Figure 32 and Figure 33 in Annex I).

Similarly, the analysis on the average risk-weighted assets associated with these green exposures indicates that there is no risk differentiation between green loans and other loans due to the sustainability features of the former. For example, the estimated average risk weights for credit institutions' loans to households financing residential real estate under both the SA and the IRB approach do not show a difference in the patterns between green loans and other non-green loans. A similar observation is also applicable for CRE loans to NFCs and various products across the business lines (see Figure 34, Figure 35 and Figure 36 in Annex I).[80]

2.2 Public schemes

In countries, there are various public schemes aiming to facilitate the uptake of green loans in markets by reducing the cost of borrowing for environmentally sustainable activities. These schemes targeting borrowers[81] and in most cases, at the same time, supporting bank funding, may take various forms such as preferential lending conditions, loan guarantees, grants, subsidies and tax relief. These public schemes are facilitated via public banks or public authorities.[82]

Public schemes are prevalent in various countries. The assessment of market practices shows that they contribute to the origination of green loans and their uptake by households and companies. Credit institutions grant green loans as part of public financial schemes available in their jurisdictions, thus pointing to the importance of supporting the development of green lending. As a result, credit institutions' green loan definitions, criteria as well as processes and documentation

[80] The treatment of sustainability features of credit institution's exposures in the prudential framework is outside the scope of this report.

[81] Households, SMEs and large corporates.

[82] This analysis does not refer to public schemes other than those entailing the involvement of credit institutions to channel funds for green economic activities. As a result, while programmes at EU-level such as the European Fund for Regional Development, EU Life and at country-level, e.g. BAFA's development plan in Germany, or Partnering for Green Growth in the Netherlands play an important role in financing the transition toward a green and resilient economic system, they are not included in the scope of this analysis.

requirements also include the specifications of the schemes. Indeed, in some cases credit institutions only define their green loans in the context of these public schemes, i.e. in line with the selection criteria, and process and documentation requirements.

The scope of these public schemes is mostly related to energy-efficient buildings and transportation for households, and to wider energy efficiency improvements for economic activities, processes, transportation and project financing for SMEs and large corporates.

Preferential lending conditions are designed typically in the form of reduced or zero interest rate on the loan financing activities such as the construction and purchase of energy efficient buildings, and renovation of existing buildings to improve their energy efficiency. Similarly, public subsidies are offered on the capital or interest payments on the loan financing sustainable assets. In some cases, the preferential treatment is linked to the level of ambition in the economic activity, e.g. the higher the energy efficiency of the asset, the lower the interest rate is.

When credit institutions take part in such public schemes, they grant green loans in accordance with the sustainability criteria set out in the respective regulation or those set out by the public bank, where relevant. In some cases, these criteria are based on the EU Taxonomy.

Examples of such public schemes used by the credit institutions in various countries are presented in more detail in the Annex (Table 1 in Annex I).

2.3 Main findings of the analysis

The analysis of the industry data collected through the EBA industry survey shows that credit institutions' green loans are still a small share of their total loans. Loans to households financing RRE have a significant share in credit institutions' green portfolios, suggesting that a relatively large portion of households benefit from green loans and credit institutions have already started putting their efforts into channelling funds for sustainable immovable properties. This is a remarkable development as real estate finance is a major part of household spending and immovable properties are a major contributor to carbon emissions. However, one important shortcoming of the trend is that green loans to households financing RRE is mostly for the acquisition and construction of new properties rather than the renovation of existing low-energy-performing properties. To this end, currently, green lending activities seem to fall short of reaching the momentum to achieve the EU sustainability targets for example under the EU Renovation Wave.

Credit institutions' other green loans to households, including those for the purchase of household appliances and for the installation, maintenance and repair of renewable energy equipment seems to be limited.

In addition, the share of green loans to SMEs is small, compared to household lending and NFC lending, despite their reliance on bank lending for finance. This suggests that SMEs do not benefit sufficiently from green loan markets. There may be several explanations for this finding. SMEs may be relying on other sources of finance for their sustainable investments such as equity and debt

issuance. Also, SMEs may find it challenging to meet the necessary data and documentation requirements to benefit from green loans at this stage of the transition due to their limited resources. To this end, it is of paramount importance to investigate channels to include SMEs in sustainable finance and introduce incentives and mechanisms to support their transitioning to a sustainable economy.

Credit institutions mostly use their internal criteria to define their green loans across all business lines. The EU Taxonomy technical screening criteria on substantial contribution is used by credit institutions only in the financing of selected economic activities related to climate change mitigation. As explained later in the report, this is due to the recency of the framework as well as data and usability challenges that credit institutions and their borrowers face in the application of the associated criteria.

Credit institutions extend green loans to SMEs, and to large corporates, where the use of proceeds is not known. In some cases, credit institutions identify these loans as green when they are granted to pure-play companies. Similarly, in the financing of immovable and movable properties to SMEs and large corporates credit institutions assess the main economic activity of the borrower as a reference instead of assessing the loan proceeds. This may be considered as a simplified approach applied by credit institutions to facilitate the process for borrowers.

Consequently, green loan markets are relatively more developed in segments where data and documentation are available, and exchange of information between the credit institution and the borrower is most possible. These products are loans financing immovable and movable properties and in the area of climate change mitigation in all business lines. In addition to this, public and private schemes providing incentives to the borrowers play an important role in supporting the markets. To this end, markets for green loans seem to be more developed in SME and large corporate lending in the area of energy efficiency, for example to reduce CO2 emissions and improve energy efficiency in the production and manufacturing process. The market for green loans seems to be limited for other products such as household appliances and equipment and in other environmental objectives in all business lines.

General findings

1. On average, green loans are 4.5% of credit institutions' total loans, with significant variations across institutions and asset classes. Loans to households seem to be the main driver in the overall green portfolio.
2. Loans financing RRE drive institutions' overall green lending to households.
3. Green loans to households for financing RRE are granted primarily for purchasing new properties. Green loans financing RRE renovation do not appear to have the same momentum.

4. Institutions' other household green lending, including those for purchasing household appliances and for the installation, maintenance and repair of renewable energy equipment seem to be limited.
5. Credit institutions' green loans to SMEs is marginal.
6. Green use-of-proceeds loans other than those financing immovable and movable property are relatively limited in green retail lending but are significant in green non-retail segments.
7. Institutions predominantly use their internal standards to identify green loans across all asset classes. They are based on market standards with a combination of UN SDGs and the EU Taxonomy technical screening criteria.
8. Institutions are increasingly incorporating the EU Taxonomy in their internal standards. Criteria on the substantial contribution to climate change mitigation are the most commonly used reference in the EU Taxonomy.
9. Use of proceeds together with the green credentials of the asset are the primary approach to determine green loans financing immovable and movable property across all business lines.
10. While the information on the energy performance of the asset is fundamental in the definition of green loans financing these assets, this information seems to be lacking in (especially non-retail) transactions and in many instances, credit institutions rely on estimates for this information.

3. Proposal for a common framework on green loans

3.1 Definition for green loans and a voluntary green loan label

Principles and a general definition for green loans

The analysis of the industry data shows that the definitions, criteria and processes by which credit institutions identify their green loans have similarities and that market practices follow a pattern. However, it also shows lack of comparability and fragmentation in markets for green loans in the absence of a common definition and rules. Lack of a common definition and rules is also an obstacle to the growth of green loan markets.[83] [84]

The introduction of a common definition and rules on credit institutions' green lending in light of regulatory initiatives in the EU sustainable finance framework would provide clarity in markets both for credit institutions originating these green loans and for borrowers using the proceeds. As such, a common definition with standardised criteria would also ensure a level playing field for the credit institutions and adequate consumer protection for the borrowers involved. To this end, setting out a common framework for green lending and at the same time supporting credit institutions in integrating key features of green loans in their loan origination and monitoring processes is of paramount importance.

At present, there is neither a widely used common standard nor a label exclusively applicable to green loans.[85] However, Loan Market Association (LMA) together with Asian Pacific Loan Market Association (APLMA) and Loan Syndication and Trading Association (LSTA) and in cooperation with International Capital Market Association (ICMA) has developed Green Loan Principles (GLP)[86], which globally became the leading framework in green lending among credit institutions.

This industry standard, e.g. GLP requires a loan to have four core components to be called a green loan:

1. The proceeds of green loans should be utilised in economic activities that contribute to environmental objectives.

[83] Credit institutions believe that a lack of agreed definitions and standards for green retail loans is the second major impediment for the further development of the market for green retail loans, following a lack of data and transparency to identify green retail assets (see EBA Risk Assessment Report – December 2022, p. 54) (link).

[84] See the findings and recommendations in the Energy Efficiency Financial Institutions Group (EEFIG), The Evaluation of financing practices for energy efficiency in buildings, SMEs and in industry, October 2021 (link).

[85] While a widely used or international initiative is not available, the Energy Efficient Mortgage Initiative in the EU is one example of such an initiative.

[86] Loan Market Association Green Loan Principles (December 2018, updated version February 2023).

2. Economic activities where the loan proceeds will be allocated are expected to be assessed and selected, and such information should be communicated clearly between the credit institution and the prospective borrower.

3. The proceeds of a green loan should be credited to a dedicated account or tracked by the borrower to maintain transparency and promote integrity of the loan.

4. The borrower should report information on the use of proceeds together with the expected and/or achieved impact in economic activities until the green loan is fully drawn.[87]

Furthermore, according to the GLP, green loans are any type of loan instruments and/or contingent facilities[88] made available exclusively for the financing, re-financing or guaranteeing, in whole or in part, of new and/or existing eligible green projects and which are aligned to the four core components of the GLP.[89]

The industry standard sets out a framework for green loans and the fundamental determinant of a green loan is the utilisation of the loan proceeds for green projects. To this end, green loans are developed through interaction based on available information between borrowers who want to raise funds, clearly declaring that they will allocate the loan proceeds to environmentally sustainable/green projects, and credit institutions who want to finance a sustainable/green project of their choice, in line with their lending policies. However, the industry standard which is globally applied does not define green projects, and leaves room for how the green credentials of the project should be evaluated and what can be classified as green. This is left to the assessment and agreement of the parties involved in the loan agreement.

Accordingly, a high-level EU definition for green loans could be formulated as any type of loan instrument of which the proceeds are used by borrowers to finance economic activities that contribute to one or more of the environmental objectives of the Taxonomy Regulation[90] and at the same time do not significantly harm the other environmental objectives.

Principles and a definition for green loans based on the EU Taxonomy

In the EU sustainable finance framework, the EU Taxonomy provides a classification system for environmentally sustainable activities to ensure the environmental integrity and sufficient ambition to achieve the EU objectives. As explained earlier in the report, the EU Taxonomy is the reference to define sustainable activities for various products, such as green bonds under the EU Green Bond Regulation and for green loans to households, as part of their green asset ratios under the

[87] This is particularly important to minimise and eliminate the risk of greenwashing stemming from the borrower's action. Greenwashing may occur when the borrower benefits from the terms and conditions attached to a green loan agreement but uses the proceeds in a non-green activity and other than what is intended in the loan agreement.

[88] Such as bonding lines, guarantee lines or letters of credit.

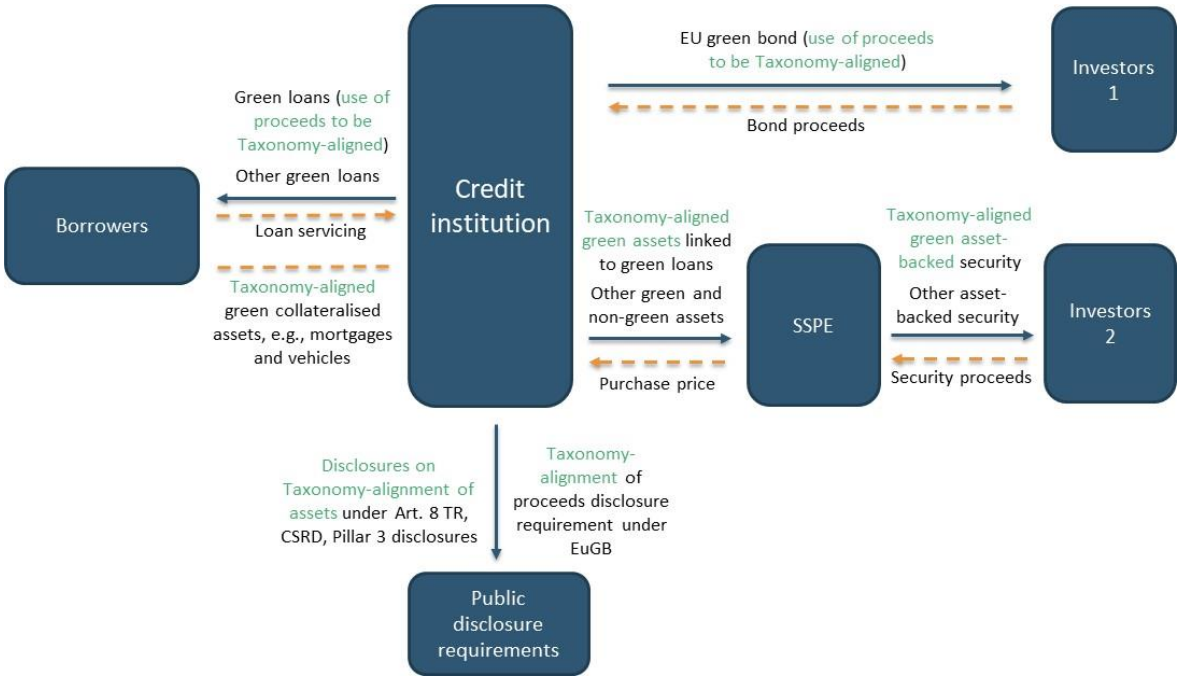
[89] LMA Guidance on Green Loan Principles (February 2023).

[90] In accordance with Article 9 of Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment (OJ L 198, 22.6.2020, p. 13–43).

Taxonomy Disclosures Delegated Act. Consequently, a green loan definition where the proceeds are allocated to EU Taxonomy-aligned economic activities would create continuity and consistency across financial products and regulatory requirements.

Furthermore, the EuGB applies the use-of-proceeds principle at the originator level instead of the issuer level, i.e. securitisation special purpose entity (SSPE), considering at the current transition phase for the markets and until the economy has generated adequate volume of Taxonomy-aligned assets. Yet, the standard requires disclosures of information on the share of securitised exposures that finance economic activities which are Taxonomy-eligible activities. Such definition and associated framework would support credit institutions' activities in accordance with the EU green bond standard. Figure 22 illustrates green loans based on the EU Taxonomy in the context of the wider EU sustainable finance framework.

Figure 22 Green loans and the use of the EU Taxonomy in the context of EU sustainable finance framework



Note: the purpose of the theoretical illustration is to present the use of the EU Taxonomy across various funding and lending activities of credit institutions and in their public disclosure requirements. Credit institutions may receive funding from other channels, and as well, funding for green loans may come from other (non-)green investments and deposits.

A harmonised high-level green loan definition can be linked to the EU Taxonomy. Such a definition based on the EU Taxonomy would be beneficial for credit institutions. Green loans granted under the EU standards would strengthen institution's reputation, support regulatory compliance, e.g. in the Taxonomy Disclosures Delegated Act, increase business opportunities in markets, e.g. in the context of various policy initiatives such as the EU Renovation Wave, mitigate climate-related transition and physical risks, and reduce the risk of greenwashing.

However, a green loan definition solely based on the EU Taxonomy also has shortcomings. Firstly, market evidence shows that, at the current juncture, technical screening criteria of the EU Taxonomy are strict and exclude a large volume of activities contributing to the transition of the economy. In addition, originating and collecting data for the assessment of Taxonomy alignment of the economic activities require considerable efforts.[91] While current market practices incorporate criteria of the EU Taxonomy in their green finance framework, in most cases the criteria to define a green economic activity or asset for the identification of green loans are based only partially on the EU Taxonomy. Secondly, the EU Taxonomy framework does not capture the existing large volume of economic activities improving the existing conditions and supporting the transition but not aligned with all the relevant technical screening criteria.[92] A green loan definition based solely on the EU Taxonomy, and the alignment of the loan proceeds with its screening criteria at the point of origination, would exclude a large volume of such loans that credit institutions identify as green on their balance sheets.

The regulatory framework should recognise the actions taken by financial and non-financial market participants to substantially and sufficiently improve currently less-efficient and poorly performing economic activities and assets to increase their sustainability credentials, and to contribute to environmental objectives. Such actions result in, among others, increased energy performance and contribution to environmental objectives without necessarily aligning with the EU Taxonomy criteria.[93] While a definition of green loans can be firmly attached to the EU Taxonomy, the overall sustainable finance framework should recognise and accommodate efforts contributing to the environmental objectives compatible with the required path to transition, but which do not necessarily align with the EU Taxonomy criteria. On this point, it is important to make the distinction especially between, on the one hand, new economic activities and loans financing these new economic activities and, on the other hand, existing economic activities and loans financing the improvement of the environmental features of these existing activities. While it is reasonable to use the EU Taxonomy as the main reference for loans financing new economic activities, it is important to recognise other credible existing standards used for green loans aiming to improve environmental contributions and at the same time minimise environmental harm of existing activities. To this end, a framework that does not embrace the efforts other than those aligned with the EU Taxonomy, especially in the short and medium terms when financial market participants face challenges in the usability of the EU Taxonomy, risks not being able to accelerate and give necessary momentum to the transition wave needed to reach the EU sustainability targets. To this end, the recast EPBD, introducing the concept of mortgage portfolios standards, foresees mandatory energy efficiency improvements and mechanisms incentivising mortgage lenders in this

[91] To this end, the multi-stakeholder Platform on Sustainable Finance composed of experts representing both public and private sectors mandated under Article 20 of the Taxonomy Regulation advises the European Commission on the data availability, quality and the usability of the EU Taxonomy.

[92] As a response to these identified challenges, and in order to facilitate the usability of the EU Taxonomy and support transition finance through the use of the EU Taxonomy, the European Commission introduced several measures in its sustainable finance package of June 2023.

[93] For example, the EU Renovation Wave requires a large-scale renovation of the building stock in the EU. Renovation of buildings based on the criteria mostly applied in markets other than the EU Taxonomy criteria also offer a credible solution to reach the EU renovation targets.

regard, which rely on the definition of sustainable economic activities in the EU Taxonomy but not necessarily the alignment with the EU Taxonomy technical screening criteria.

Nevertheless, the EuGB provides elements that can be used for a green loan definition, which a potential framework for green loans can leverage:

- As in the case of green bonds under the EuGB, finances through green loans can be extended in the economic activities covered by the environmental objectives specified in the Taxonomy Regulation.
- Green loans are typically allocated to finance fixed assets, capital expenditure, operating expenditure as well as assets and expenditure of households.
- Green loans can be a useful instrument for the EU and its member states to support, for example, through tax relief, subsidies and other public expenditure, the transition to a sustainable economy and green loan markets.
- The sustainability assessment of the economic activities where the loan proceeds are allocated can be carried out against the EU Taxonomy technical screening criteria, with the potential to provide flexibility in the use of proceeds.[94]
- Capital expenditure can take a long-term perspective with a planned projection where the loan proceeds towards these expenditures align with the EU Taxonomy not at the point of loan origination, but in a planned timeframe in the future.[95]
- Where green loan proceeds are allocated over an extended time horizon and in multiple disbursements,[96] the application of the EU Taxonomy technical screening criteria and grandfathering rules to unallocated proceeds and proceeds for capital expenditure can mirror those included in the EuGB framework.
- To complement their Taxonomy-alignment disclosure requirements, credit institutions can publish reports publicly to indicate the allocation of their (green) loans and loan impact reports and can request an independent review of their green lending as part of their wider green finance framework.

[94] For example, as in the case of the EuGB, these can be when the technical screening criteria are not available for a specific economic activity at the date of loan origination or when the capital expenditure has a longer time horizon where the Taxonomy alignment is planned to be achieved in the future.

[95] The EuGB allows the alignment of bond proceeds allocated to capital expenditure and operating expenditures later than the date of issuance provided that future Taxonomy alignment of these proceeds are documented in capital expenditure plans.

[96] For example, in project finance credit institutions may disburse the loan partially in steps along the completion of various stages in the development of the project.

To this end, the above-mentioned features of the EuGB provide insight into the future policy formulation on green loans that can be in the form of a regulation, guidance to market participants or in the design of various financial and non-financial incentives.

While the EU green bond framework can provide input into the investigation of measures to support green loan markets, it also is important to note that there are differences between green loans and green bonds which have implications *inter alia* on the incentives and rationale for the exchange of information and verification process between the counterparties of the transaction in the context of green finance.[97] Drawing on the EuGB, a high-level definition for green loans, that is formulated above, when based on the EU Taxonomy could have the following features:

1. **Loan type and asset perimeter**: green definition should include all types of loans and advances with known use of proceeds such as term loan, investment loan, project finance, refinancing loan, financial and operating leasing, syndicated loan, revolving credit facility, factoring and forfaiting, and working capital when the use of proceeds is known.[98] Similarly, the green definition should cover banks' loans and advances to households, retail and non-retail SMEs and to large corporates.

2. **Use of proceeds**: as mentioned above, the proceeds of green loans should be allocated to economic activities aligned with the EU Taxonomy until their maturity. Where the proceeds of the loan are allocated to more than one purpose or economic activity, a loan may also take the form of one or more tranches of a loan facility. In such cases, each tranche applicable to a specific economic activity should be Taxonomy-aligned. Tranches that are not Taxonomy-aligned should not be categorised as green. Additionally, the framework could introduce flexibility in the allocation of proceeds towards Taxonomy-aligned economic activities under specific conditions as provided in the EuGB.

3. **Grandfathering of existing green loans in the application of technical screening criteria of the EU Taxonomy**: loan proceeds should be allocated in alignment with the technical screening criteria of the EU Taxonomy applicable, as per the definition of green loans based on the EU Taxonomy, when the loan is originated and until the disbursement of the full loan amount from the credit institution to the borrower.[99] Similar to the EuGB, where technical screening criteria are amended after the origination of the loan and before the delivery of the full loan amount, the outstanding amount should continue being identified

[97] Credit institutions issue green bonds to receive funding from investors who are willing to invest in sustainable economic activities. In this case, the credit institution issuing the green bond is requesting the funding and is bound by the transparency requirements of the agreement. In the case of green lending, credit institutions extend funds to households and undertakings in need of funding.

[98] For example, instruments such as a bank guarantee, working capital loan where the use of proceeds is not known, and sustainability-linked loans in general, should be excluded from the initiative.

[99] The concept of grandfathering is not related to the maturity of the loan but the time over which the loan is disbursed to the borrower. This would be applicable when the loan is disbursed to the borrower gradually over time, such as in project finance where the loan proceeds may be linked to the progress of the project over time. Full grandfathering should apply to loans when proceeds are allocated in full when the loan is granted.

as green until a certain point[100] after the amendment of the technical screening criteria. After that point, credit institutions should ensure that the loan is in alignment with the amended technical screening criteria so that the contractual amount of the loan holds its green definition. This phase-in period would also allow both additional economic activities to be taken by the borrower for the alignment and collection of relevant data for the assessment.

4. **Treatment of newly originated loans and the loan stock**: the proceeds of green loans should be Taxonomy-aligned at the point of origination. Furthermore, loans originated at an earlier date should become green later only if their proceeds are allocated to Taxonomy-aligned economic activities.[101] Loans financing capital expenditure should be aligned with the EU Taxonomy when either capital expenditure is Taxonomy-aligned or capital expenditure is part of a plan to expand Taxonomy-aligned economic activities or to allow Taxonomy-eligible economic activities to become Taxonomy-aligned within a period of five years (and exceptionally 10 years).[102] Capital expenditure should cover finances by large corporates and SMEs but also capital improvement in the retail segments[103].

5. **Capital expenditure**: green loan proceeds that are allocated for capital expenditure including those financing the acquisition, construction and renovation of immovable property by households can be subject to flexible conditions where the Taxonomy alignment of the proceeds can be achieved, not at the point of loan origination but within a reasonable time period from the origination of loans.

6. **Reporting**: under the Taxonomy Disclosures Delegated Act, annually, credit institutions are required to disclose information on the extent to which the economic activities they finance through loans and advances, as well as debt securities and equity instruments, are Taxonomy-aligned. These requirements cover loans and advances to eligible large corporates and to households for activities related to real estate and car loans. The disclosure requirements for credit institutions under the Delegated Act will be extended to institutions' loans and advances to SMEs proportionately in a proportionate manner. Credit institutions are also required to disclose this information in their Pillar 3 reports. Disclosure requirements provide a robust basis for increasing transparency on credit institutions' green loans.

[100] In the EuGB, this period is 7 years. It is reasonable to mirror these grandfathering conditions in a potential framework for green loans.

[101] In the area of real estate lending, the treatment could allow the outstanding non-green loan amount associated with a non-green asset to become a green loan in full once, at a later stage, the asset has become green through renovation. In this case, not only the loan for renovation of the asset can be classified as green but credit institutions could also classify the full outstanding amount as green after the asset becomes green. This would also give credit institutions further incentive to give borrowers renovation loans.

[102] Capital expenditure as stated in 1.1.2.2. in Annex I to Commission Delegated Regulation (EU) 2021/2178 (Taxonomy Disclosure Delegated Act) (OJ L 443, 10.12.2021, p. 9–67).

[103] For example, residential real estate capital improvement by households.

In addition to these disclosures, credit institutions can publish a report on the allocation of proceeds of their green loans and advances to borrowers as part of their wider green finance framework, also including those that are not Taxonomy-aligned.[104] The report should cover all green loans and advances until the end of their maturity and until the completion of the capital expenditure, where applicable. The report on the allocation of proceeds of green loans can be reviewed by an external reviewer in a second party opinion or by an independent internal function of the credit institution.

In addition to these features, as part of a definition for green loans, further simplified rules and proportionality in the application of the EU Taxonomy should be considered in order to facilitate the access to sustainable finance particularly in the SME segment of the market.[105]

Green loan label based on an EU definition for green loans based on the EU Taxonomy

A green loan label is typically based on a common green definition and incorporates related process requirements. To this end, a green label is a tool that would help borrowers identify loans with specific features in line with the definition and require them to comply with certain obligations to benefit from these loans.

Such a framework would introduce a voluntary green label for loans. Credit institutions that wish to use the designation of green loan in accordance with EU standards, e.g. EU Green Loan, for their loans to borrowers should follow certain requirements. In other words, an EU green label for loans can be used for loans that finance economic activities complying with the EU Taxonomy alignment criteria[106], and that follow process requirements.

A voluntary green loan label may provide various merits:

- increase level playing field and transparency in product identification and comparability;
- mitigate greenwashing;
- enhance confidence in markets especially for households and retail SMEs;
- enhance consumer protection;
- allow equal and easier access to information and process requirements;
- support a more harmonised capacity-building for all market participants, e.g. borrowers, credit institutions, other industry professionals, entities providing financial incentives;

[104] Credit institutions are requested to disclose such information in their Pillar 3 reports.

[105] Such simplified approach would also be consistent with the ongoing initiatives under Taxonomy disclosure requirements and sustainability reporting standards for SMEs under the scope of the Corporate Sustainability Reporting Directive (CSRD), and as presented in COM (2023) 535 final – Communication from the Commission – SME Relief Package (link).

[106] As set out in the EU Taxonomy Regulation and related delegated acts establishing technical screening criteria.

- provide a cost-effective mechanism especially when the label is linked to financial incentives;
- enhance reputation for the product and credit institutions;
- support more inclusive financial markets, especially reaching low-income households and retail SMEs.

Credit institutions indicate that a voluntary green loan label with a common definition based on the EU Taxonomy can provide some benefits.[107] Harmonisation and consistency in the regulatory framework, minimising the risk of greenwashing and improved regulatory compliance are indicated as the major benefits of a voluntary green loan label. Institutions also see some merit in such an initiative for achieving EU sustainability objectives, increasing the volume of green lending and achieving a more inclusive market. The reduced cost of issuance for green loans is considered, to some extent, to be a benefit by the institutions (Figure 38 in Annex I).[108]

Also, institutions expect decreased one-off and recurring costs under such aforementioned harmonised framework in SME lending across different products (Figure 40 in Annex I) and reduced recurring costs in issuing mortgages to households (Figure 39 in Annex I). This expectation is different for the overall household portfolio where credit institutions also expect higher one-off costs under a harmonised framework with a voluntary green loan label.[109]

It is reasonable to argue that a green loan label, as a harmonised tool available across the EU, may support the origination and the uptake of green loans, if linked to necessary conditions for it to become an effective tool to support the markets. In other words, a green loan label could be beneficial if it is identified, in addition to its green credentials, with loans providing certain incentives for the borrowers to take the loans with the label compared to similar loans without it. For example, such a tool should be cost-effective and could be embedded into existing or future financial support schemes, e.g. such as the ones described in Section 2.2., to reduce the cost of borrowing and incentivising the uptake of green loans especially for households and SMEs. Also, a loan with a green label should provide and be associated with the necessary information and transparency for prospective borrowers, such as on the long-term benefits of investing in energy-efficient solutions, documentation requirements and availability of financial support schemes for such an investment.

[107] Based on the results of the EBA questionnaire in relation to expected costs and benefits of originating and monitoring of green loans under a harmonised framework with a common definition based on EU Taxonomy and a voluntary green label.

[108] While institutions recognise the potential benefits of a green loan label, it is also highlighted that such an initiative should be usable, clear and with some degree of flexibility, and should not bring additional complex requirements into the framework. To this end, potential costs should not outweigh the benefits.

[109] In terms of the source of these costs, credit institutions indicate that implementing a strategy for green lending as well as setting up necessary IT arrangements would be the main source of (both one-off and recurring) costs. However, under such a framework (in relation to the status quo without such harmonisation), the cost of collecting information from prospective borrowers seems to be less significant in household lending (for mortgages and car loans in particular) and partially for SME lending (depending on the type of product and activity financed).

Furthermore, a green loan label can be considered a classification instrument in line with the principles of the EU Taxonomy. Credit institutions and potential borrowers should not see a green loan label alone as a risk management tool.

The EBA recommends that the European Commission consider two options to introduce a definition for green loans based on the EU Taxonomy and a standard based on this definition.

1. A recommendation for credit institutions on the processes and criteria to define green loans based on the EU Taxonomy. These guidelines should cover both unsecured and secured loans to households, SMEs and large corporates. In order to support market growth, it is important that such recommendation harmonise market practices and increase transparency in markets, and be consistent across different economic activities and borrowers that are part of these loan agreements. This recommendation should also be addressed to other lenders that are not credit institutions; or

2. A legislative proposal for credit institutions on the processes and criteria to define green loans based on the EU Taxonomy, mirroring the structure and features of the regulation on European green bonds. This legislative proposal should cover both unsecured and secured loans to households, SMEs and large corporates. In order to support market growth, it is important that such a framework harmonise market practises and increase transparency in markets, be consistent across different economic activities and borrowers that are part of these loan agreements. This legislative proposal should also be addressed to other lenders that are not credit institutions.

The EBA supports the option of introducing a legislative proposal. This intervention would create a more harmonised, consistent and certain regulatory environment to effectively support the markets for green loans.

3.2 Green lending and transition finance

Sustainable finance is about financing both what is already environment-friendly and what is transitioning to environment-friendly and carbon neutral performance over time. In its communication of 13 June 2023[110], the European Commission stated that 'transition finance should be understood as the financing of climate- and environmental performance improvements to transition towards a sustainable economy, at a pace that is compatible with the climate and environmental objectives of the EU'. At the heart of the transition finance is the objective to finance investments needed for companies, particularly those operating in highly polluting industries, to improve and change so that they can progress on the path to sustainability.

Green loans finance economic activities where the proceeds are allocated to an activity contributing to environmental objectives. In some cases, green loans also take the form of transition finance, for example, when their purpose is upgrading assets or making new investments

[110] C(2023)3844 / 3 – Commission Recommendation (EU) 2023/1425 of 27 June 2023 on facilitating finance for the transition to a sustainable economy (OJ L 174, 7.7.2023, p. 19–46).

that will enable low carbon production or significantly improved environmental performance. In the green loans framework proposed earlier in the report, it is suggested that loans financing the upgrade of economic activities to align them with the Taxonomy criteria in a 5-year period (and exceptionally a 10-year period) can be categorised as green. The treatment of capital expenditure in the assessment of Taxonomy alignment and longer time horizon provided in the framework for the Taxonomy alignment of capital expenditure provide flexibility for both credit institutions and borrowers. Households, SMEs and large corporates using bank lending to finance the purchase, construction or renovation of immovable property can make use of this longer time horizon to design adequate lending plans. In contrast, loans with a dedicated transition purpose to be utilised in a credible activity-based transition plan or as part of a credible entity-level transition plan would be categorised under transition finance but not green lending.

Credit institutions can also finance transition by granting corporates other specific-purpose loans and general-purpose loans with the objective to improve the overall sustainability performance of their borrowers, for example in the form of sustainability-linked loans. Sustainability-linked loans, unlike green loans, do not require the use of proceeds for green economic activities and instead focus on incentivising improvements to the borrower's corporate-level sustainability performance by aligning the loan terms with pre-determined sustainability performance objectives.[111] Credit institutions' loans to companies, especially to SMEs, financing their transition is a crucial component of the sustainable finance framework.

In some instances, the distinction between green loans and transition finance which may also include products such as sustainability-linked loans is not clear in credit institutions' definitions and practices.[112] While some institutions indicate a clear difference between loans for transition finance and green loans in their sustainable finance framework, in other cases credit institutions include those products in green loan definitions.[113] Loans to borrowers aiming to reduce GHG emissions of the economic activities or of the assets related to these activities are identified as green, since they also contribute to climate change mitigation. Indeed, for some credit institutions, all loans that contribute to the environmental objectives of the Taxonomy Regulation are identified as green especially in the household and SME segments.

Credit institutions' sustainable finance framework seems to make a clearer distinction between green loans and transition finance and/or sustainability-linked loans in their NFC portfolios.[114] In some cases, credit institutions try to link their green loans to the borrower's transition plan or carbon trajectory.

[111] LMA Sustainability-Linked Loan Principles (February 2023).

[112] Transition finance and sustainability-linked loans mostly target SMEs and large corporates. Sustainability-linked loans and products under transition finance are not applicable to household lending. The exception is credit institutions' loans to households financing RRE in order to increase energy performance of these assets and reduce their carbon emissions. Some institutions categorise these loans under transition finance.

[113] This also suggests that in the statistical analysis presented, the volume of green loans also include sustainability-linked loans and other loans under transition finance, in accordance with credit institutions' own practices.

[114] As indicated in response to the EBA industry survey, credit institutions tend to formulate and use more frequently transition finance and sustainability-linked loans towards their large corporates rather than households and SMEs. This finding somewhat aligns with the market data presented above (Figure 1).

These green and transition finance loans, regardless of whether they are categorised as green or not, seem to be a principal part of lending towards economic activities and assets that contribute to environmental objectives in order to achieve the required transition and reach EU sustainability objectives. The criteria and requirements for green loans to various borrowers are designed to improve the energy performance and sustainability features of the economic activities as well as processes and assets related to these activities. For example, in retail lending, in the context of the objective to at least double the annual energy renovation rate of residential and non-residential buildings by 2030 and to foster deep energy renovations[115], such loans to households play an important role. A harmonised framework with a green definition based on the EU Taxonomy and associated transparency requirements recognising, in addition to green lending, credit institutions' other efforts to finance the transition would not only encourage Taxonomy-aligned economic activities but also support market growth to reach a level of maturity and a faster process to reach the sustainability objectives.

Policy advice

Short term (1 to 2 years)

1. The EBA sees the need for clarification on what constitutes an economic activity financed by a green loan and setting out an EU definition for green loans.
2. Such a definition for green loans should leverage, as much as possible, current market practices and industry standards that are in line with the EU's environmental objectives where the determinant element of a green loan is the utilisation of loan proceeds.
3. In the formulation of a green loan definition, the EBA sees the benefit in linking the economic activities, where the green loan proceeds are allocated, to the EU Taxonomy technical screening criteria.
4. While the EU green loan definition should be based on the EU Taxonomy, at the current stage of the transition and until markets reach a certain level of maturity, the policy initiative should also take into account market participants' efforts that contribute to environmental objectives based on available market standards other than those specified in the EU Taxonomy.

Medium term to long term (2 to 5 years)

5. The EBA is of the opinion that the European Commission should consider various options to support markets for green loans with dedicated evidence-based assessment and cost-benefit analysis. These options should include at a minimum:

(i) a recommendation to formulate a conceptual framework on green loans without introducing a specific green label but based on the green loan definition, in order to provide a foundation for green loan agreement including process and transparency

[115] As stated in Communication from the Commission - A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives.

rules between credit institution (or a lender that is not a credit institution) and prospective borrower; or

(ii) a legislative initiative to introduce a voluntary label for EU green loans encompassing the definition of a green loan based on the EU Taxonomy and related process requirements, similar to the one proposed for EU green bonds, which credit institutions (and other lenders that are not credit institutions) should follow, if they decide to obtain such a label voluntarily.

6. A green label under point 5(ii) could follow a tiered approach including two tiers. The first tier would categorise loans for which the proceeds are allocated to economic activities in line with the EU Taxonomy and its technical screening criteria, at the point of origination of these loans. The second tier would cover loans where the proceeds are not aligned with the technical screening criteria of the EU Taxonomy at the point of origination but allocated to an economic activity with a dedicated transition purpose[116] and towards the environmental objectives of the Taxonomy Regulation, for example as formulated in Commission Recommendation (EU) 2023/1425. Such a solution, including a second tier could be time-limited and subject to review until the markets reach a certain level of maturity and data availability and quality improve.

7. For an effective and efficient initiative, the policy framework should investigate the recognition and incorporation of such an EU label in existing or future financial public schemes for green loans in the EU.

8. In addition to the proceeds-based approach for green loans, the policy framework could further investigate a transition-specific approach with a focus on other general-purpose loans as part of transition finance, such as sustainability-linked loans.

9. Subject to the European Commission's request, the EBA could repeat a similar industry survey to assess market developments on green loans and mortgages. The findings of the industry survey could support the European Commission in future policy formulation.

10. Subject to the European Commission's request, the EBA could carry out an ex-post evaluation and monitoring of the policy intervention, e.g. in the form of implementing a common label for green loans and mortgages. The findings of the industry survey could support the European Commission in future policy formulation.

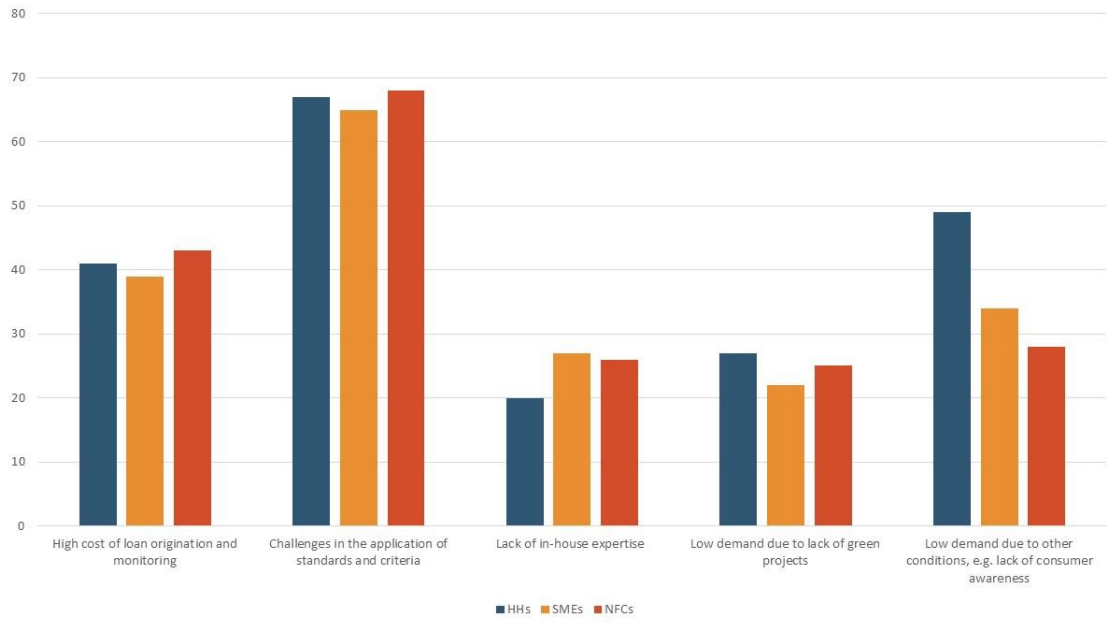
[116] Such as loans to upgrade assets or make new investments that will enable low carbon production or significantly improved environmental performance.

4. Challenges and measures to encourage and facilitate the uptake of green loans

Challenges

The greatest impediment to the growth of green loans and advances is the challenges that credit institutions face in the application of the standards and criteria. This is considered to be the main obstacle by credit institutions across all business lines. Credit institutions argue that the application of criteria in the definition of green loans, particularly those of the EU Taxonomy, are complex, time-consuming, and costly, and in most cases associated data are not available or difficult to collect[117]. Figure 23 shows the main obstacles to the growth of green loan markets according to credit institutions.

Figure 23 Main obstacles for the growth of green loan markets



Sample of 83 institutions

Some institutions highlighted the lack of financial incentives to support the origination of green loans which are associated with higher costs, especially for households and retail SMEs who need to face significant upfront expenses and may not be incentivised by the long-term advantages of the economic activity. In some cases, credit institutions refrain from financing new (green)

[117] Some credit institutions, which participated in the EBA industry survey, highlighted the challenges with the assessment of the 'do no significant harm' criteria of the EU Taxonomy.

technologies and economic activities due to their perceived higher risk profile. More precisely, they stated that SMEs and corporates in demand of green loans are relatively less mature/young companies without a proven financial track record or are companies with business models that are not yet fully recognised. It is sometimes not possible for a credit institution with moderate risk profile to grant green loans to such borrowers under these conditions. Also, some institutions mentioned that SMEs and large corporates often receive general-purpose loans for their activities and as the use-of-proceeds principle of green loans cannot include general lending, except those towards pure-play companies, this creates an obstacle for market growth.

On the demand side of the market, similarly, borrowers, especially households and SMEs, do not have the expertise and resources to first understand and then meet all the necessary conditions of the framework, such as required data, certification, legal advice, assurance, as well as monitoring and reporting requirements in the process.[118] In some cases, the requirements are burdensome in relation to the value of the loan. In households lending, credit institutions also stress the lack of consumer awareness on green products, both in terms of their characteristics and associated risks, and availability on the market, as the second biggest obstacle to growth.

Overall, most credit institutions believe that demand for green projects in markets is sufficient, especially with financial support provided under public schemes. Some institutions argued that much of the economy is under transition, i.e. it has not reached a green end state, and hence this may be an argument for a greater demand for transition finance relative to green finance. Notably, consumer preferences and behaviour are one of the key drivers of transition to a sustainable economy. Indeed, consumers can play a fundamental role in the transition by making sustainably responsible choices in their investment and consumption decisions, as well as in borrowing options available to finance them. Green loans can give consumers the opportunity to contribute to transforming the economy for example by reducing carbon emissions from residences or motor vehicles. However, consumers can only make rational decisions if they are well informed about the availability of green lending products on the markets, their characteristics, costs, advantages and possible adverse scenarios. Such information should also be available to consumers in a cost-effective manner. Additionally, adequate financial and non-financial incentives should be there to incentivise consumers of different categories to select these financing options. Box 1 details different challenges related to consumer lending in the context of green finance and potential mitigating measures to tackle them.

[118] The lack of awareness and lack of technical knowledge by households and SMEs create impediments to the development of a market financing improvements in energy efficiency. In its Recommendation (EU) 2023/1425 of 27 June 2023, the European Commission encourages financial intermediaries to offer education and awareness programmes, advisory services and web-based tools in order to increase the awareness of SMEs interested in transition finance.

Box 1 Challenges for households in consumer green lending and mitigating measures[119]

Consumers are often confronted with several challenges and uncertainties arising from unclear costs to be borne during the different stages towards the loan agreement, as a result of inadequate provision of information, as well as unclear and complex administrative procedures in order to access and make use of these incentives.[120] Often, consumers have to incur additional costs to understand product characteristics and administrative process. As such advisory services are typically provided by third parties. Such additional costs constitute an impediment to the transition towards a more developed market for all various consumer products, such as green mortgages.

The following paragraphs summarise the main challenges consumers are facing when accessing green loans, and where possible, policy suggestions to mitigate them.

Lack of EU harmonised definition of 'green loans' → introduction of a common EU definition

In the absence of a common EU definition of green loans, consumers are exposed to the risk of mis-selling. The identification of what a 'green loan' becomes difficult for consumers and comparability of different products becomes challenging. The development and adoption of a common EU definition of 'green loans' is therefore a key step, so that consumers may be aware of various products on a level playing field, as well as standardised criteria in place to access the market.

Lack of consumer awareness and knowledge → increasing marketing, advertising, and information provision through tailored channels

Consumers often lack knowledge on complex financial products such as green loans and in most cases may not be aware of their availability on the market and/or credit institution of their choice.[121] These gaps may be overcome in two ways. On the one hand, through credit institutions' further marketing, advertising and provision of information targeted to specific borrowers' needs, e.g. in advertising and marketing, and specific circumstances, e.g. at pre-contractual phase, through different channels, as the approach is more suitable for different categories of consumers. On the other hand, through strategic public initiatives raising awareness on the availability of as well as risks and opportunities for green loans and other related products.

Lack of consumers' specific technical knowledge to understand complex economic activity and administrative procedures to support financing → enhanced advice

[119] The assessment presented in this section refers to credit institutions as per the scope of the European Commission call for advice on green loans and mortgages. When the content is relevant to the MCD and consumer lending, this should be understood as credit institutions and other lenders that are currently under the scope of the MCD.

[120] Credit institutions' qualitative input to the EBA survey highlighted these instances in markets.

[121] Credit institutions' qualitative input to the EBA survey pointed to these instances in markets.

Consumers often require help to understand the specificities of processes related to green lending, such as (i) criteria to be fulfilled and documentation to be provided in order for an economic activity to be eligible for green loan; (ii) steps in the application in order to access any available financial support scheme; (iii) documentation and steps related to the requirements to be fulfilled in order to receive available support for financing green economic activities. Furthermore, within consumer categories, those not digitally savvy often face additional disadvantages and difficulties to apply on their own to access green loans and mortgages.

Consumers should be provided, either at their own request or at the credit institution's initiative, with adequate advice and technical support in their application to access green lending. Credit institutions should clarify whether the advice is provided on an independent basis. Such advice should cover the cost of the transaction as well as technical features of the product, together with an assessment of other possible market products. Of utmost importance, the advice should highlight any risks the product may entail for the consumer. Such a comprehensive, transparent and fair advice is expected to be delivered through a channel that is most suitable for consumers, considering their personal circumstances. The advice would also make the process more efficient and cost-effective for both credit institutions and consumers, increase confidence in markets and prospective borrowers' willingness to participate.

Lack of trained staff in credit institutions → implementation of specific training

Insufficient or inadequate training of sale staff is a shortcoming affecting, in certain instances, the conventional mortgage market. This is amplified in sustainable finance, which has an increased level of complexity, with products (in the case of mortgages and loans, credit products) that are often a novelty in the market, and which would require significant improvements in the level and quality of expertise by financial advisors and credit institutions' sales staff as part of the transaction. To mitigate this shortcoming, credit institutions should ensure that their sales staff is provided with specific training on sustainable finance, climate change-related risks and green loans offered on the market to be able to advise consumers adequately on the features, costs, risks and opportunities that such green financial product would entail. For mortgages, this could be achieved by introducing in Annex III to the MCD (related to staff minimum knowledge and competence) of minimum criteria that sales staff are expected to meet in order to be qualified for dealing with green credit products. This would be reasonable and also emphasise the novelty of green credit products and the related requirement of specific capacities from staff. Similarly, this could apply to consumer credit product offers under the CCD.

Lack or inadequate provision of information at pre-contractual stage → improving adequacy of services and information

Consumers are often not provided with adequate information on the green product and associated risks and this shortcoming currently concerns standard mortgages (whereby consumers receive information in a language that is not simple or plain neither do they receive this information in a timely manner). It is therefore crucial that consumers are informed about

the sustainability features of the product[122], such as those related to its energy performance, CO2 emission and EPC, in simple and plain language in the pre-contractual phase of the agreement and clearly indicated in the applicable standard information sheet under either the CCD or MCD, (for MCD products, this would concern, in particular, sections 3 (Main features of the loan) and 4 (Interest rate and other costs) of the European Standardised Information Sheet (ESIS)).[123]

Lack of adequate financial incentives for consumers → provision of customised solutions

Among the challenges for consumers to take up a green loan is often the significant amount of personal finances required for the entire transaction, which in most cases, has to be made available by the consumers in advance. Consequently, in some cases consumers are discouraged to uptake green loans due to its short-term cost implications on their finances, regardless of long-term economic benefits. This situation eventually emarginates certain vulnerable categories of consumers who do not hold sufficient disposable income. It would therefore be important that any financial incentives, e.g. public schemes, subsidies, tax benefits, lower interest rates, lower down payments, are designed in an inclusive manner and accessible to all type of consumers. Consumers will only be incentivised to access green loans through affordable options and benefits.

As presented earlier, one of the most common challenges for consumers is the payment of the upfront costs. A large number of credit institutions have already implemented mitigating measures to reduce upfront costs for consumers to make the financing more affordable. Measures include price incentives such as those available due to public support schemes and non-price incentives, such as (i) offering a green loan with a lower interest rate (fixed and/or variable); (ii) reducing the price of auxiliary services connected to the credit product, e.g. advice on the energy performance of real estate or free insurance coverage; (iii) disbursing a larger amount at origination or eliminating fees for lending; (iv) co-sharing the notary fees; (v) offering discounts through installation, e.g. of energy efficient products, with commercial partners.[124] Certain good market practices can be considered to set the standards for a harmonised EU green loan framework.

[122] As an example, in line with Annex I to the Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (recast) for green credit contract aimed at purchasing / renovating a residential real estate, sustainability features of the product would include the following information against the targeted energy savings: air-conditioning, insulation, and other elements as indicated in Annex I.

[123] This approach would be in line with the ESAs advice to the European Commission on the review of the packaged retail and insurance-based investment products (PRIIPs) Regulation (JC 2022 20) published on 29 April 2022. In this advice, inter alia, the ESAs suggested to insert in the Key-Information-Document (KID) of the PRIIPs products also information on environmental or social objectives targeted by the product.

[124] Credit institutions' qualitative input to the EBA survey highlighted these instances in markets.

Incentives

As part of their green lending, credit institutions provide various price and non-price incentives to their borrowers for the uptake of these loans. Most of the credit institutions, over 70%, indicated to be charging lower interest rates[125] and/or lower fees for green loans and advances they grant to households compared to similar non-green loans and advances.[126] SMEs and NFCs tend to benefit less in such price incentives, e.g. preferential rates on green loans. Approximately 42% of the institutions apply such instrument in their business lines.[127] Credit institutions offering auxiliary services to support the requirements and opportunities associated with green loans[128] at reduced cost is the second most common incentive in the markets. The share of institutions in the sample offering such service towards households is over 22%, while this figure goes down to 15% for retail SMEs and to 12% for non-retail SMEs and NFCs.

Financial incentives other than discount on the interest rate and offering auxiliary services at a reduced cost are not common in markets. Only few credit institutions claimed to apply other financial incentives such as setting higher loan-to-value ratio for loans financing assets at origination[129] or offering larger loan amount at origination. In some cases, financial incentives take the form of reduced or no fees for green loan origination, longer maturity for the green loan, discounts on the costs of real estate valuation, on the notary services[130] or on the issuance of a new EPC for the real estate[131]. Several credit institutions are waiving the refinancing fees for loans that meet the environmental criteria.

In addition to the incentives provided by the credit institutions to their borrowers for the uptake of green loans, credit institutions believe that other public and regulatory measures can contribute to the origination of green loans.[132] Also, about half of the credit institutions think that a green label would contribute to the growth of the green loan markets (Figure 24).

[125] Credit institutions typically offer up to two percentage point discount on the interest rate for loans meeting determined sustainability criteria.

[126] These incentives may also be linked to the public schemes, which are discussed in the previous section of the report.

[127] As discussed previously, the finding may be related to the various public schemes towards households which focus on mainly preferential rates on loans.

[128] Such services may include advice on energy efficiency improvements and available public schemes to support the borrowers.

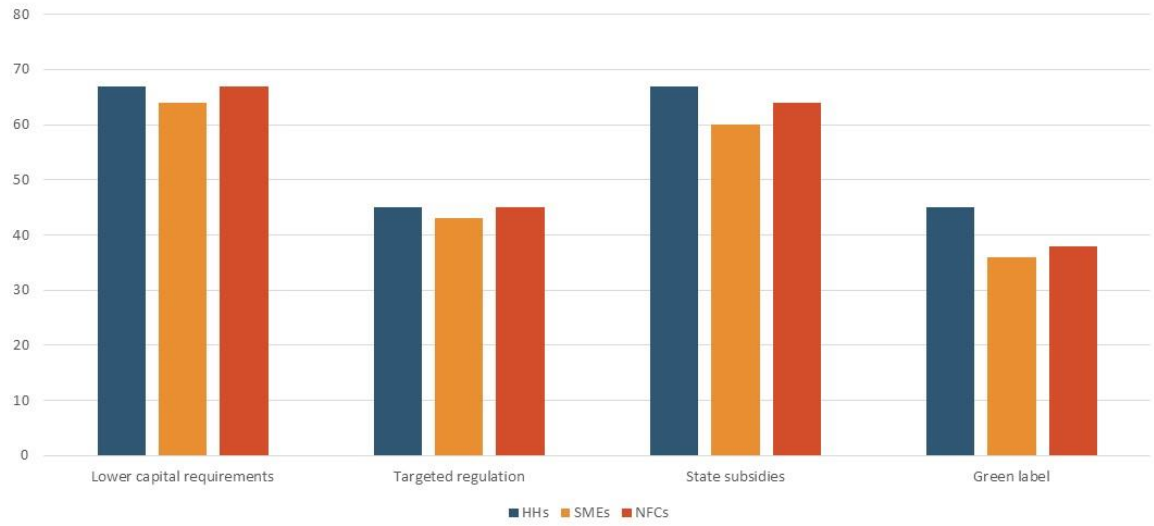
[129] For example, the difference between the loan-to-value (LTV) ratio for a green real estate and the LTV ratio for a non-green real estate may be about five percentage points.

[130] In such incentive, institutions may finance up to 50% of the total notary fees for the transaction.

[131] Institutions finance the full cost of EPC issuance for the real estate.

[132] Lower capital requirements for green loans and more state subsidies are the most preferred measures by the credit institutions across all business lines. However, this contradicts with the previous argument put forward also by the credit institutions that green investment may be in some cases associated with high risk justifying even higher capital requirements.

Figure 24 Effective measures to support the origination of green loans as stated by credit institutions



Sample of 83 institutions

Similarly, credit institutions believe that favourable pricing is significantly the most effective tool to encourage the uptake of green loans across all business lines. Credit institutions think that lower rates and longer fixed rates could contribute the most to the uptake of green loans by borrowers. Other initiatives such as advice on energy efficiency improvements at affordable costs, advice on state subsidies and targeted product design, e.g. bundling green loans with insurance would be less effective for this purpose (Figure 37 in Annex I)

Finally, current market and regulatory developments show the importance of considering sustainability aspects in investment, including credit institutions' loans financing economic activities and assets. It is documented that environmental aspects and sustainability features play an increasingly important role in the risk-based assessment of various economic activities and assets.[133] In the case of loans collateralised by immovable property and movable property, the market value of the collateral is affected by the environmental considerations and especially its energy performance.[134] Market practitioners and appraisers started to allow for these aspects in their methodologies on the valuation of physical assets. As the value of the collateral contributes to the calculation of prudential metrics such as the loss given default, and hence have a direct impact on own funds calculations, credit institutions have an incentive also in financing energy efficient assets from a risk management and prudential perspective.[135]

[133] See EBA report on the role of environmental and social risks in the prudential framework (link).

[134] See section 3.4 of the EBA report on the role of environmental and social risks in the prudential framework (link).

[135] See section 3.4 of the EBA report on the role of environmental and social risks in the prudential framework (link).

5. Green loan origination and monitoring process

Credit institutions originate and monitor green loans as part of their general processes on loan origination and monitoring. The EBA Guidelines on loan origination and monitoring[136] provides standards for credit institutions to follow for these activities. Particularly, these guidelines provide guidance, firstly, on the integration of ESG factors in institutions' internal governance for credit granting and monitoring, and secondly, on credit institutions' environmentally sustainable lending. The guidelines further require credit institutions to consider ESG factors and other relevant information such as the energy efficiency of the related economic activities and assets in the creditworthiness assessment of the borrowers.[137]

Identified current market practices show that a green loan origination and monitoring framework include broadly the following steps:

Data collection

In the pre-contractual phase, credit institutions first collect relevant data and information from the prospective borrower and/or third parties or use the existing information.[138] Institutions do so in order (i) to provide the prospective borrower with the pre-contractual information to ensure an informed decision; (ii) to assess the creditworthiness of the prospective borrower and risk profile prior concluding the loan agreement; and (iii) to carry out an evaluation and selection, of the eligibility of the economic activity that the prospective borrower is planning to finance through green loans, e.g. whether the economic activity where the proceeds will be allocated is one of the selected lending areas of the credit institution that contribute to at least one of the environmental objectives. Credit institutions also design such process and introduce a set of information requirements for the prospective borrower in order to mitigate the risk of greenwashing.

In the pre-contractual phase and as part of the data collection exercise, credit institutions assess the eligibility of the prospective borrower for green financing. The eligibility assessment is performed by the credit institutions based on their green lending framework. When the economic activity and/or the asset to be financed falls in one of the eligible lending categories, the prospective

[136] EBA Guidelines on loan origination and monitoring (EBA/GL/2020/06) (link).

[137] In addition to the EBA Guidelines on loan origination and monitoring, more recently, the EBA Report on the role of environmental and social risks in the prudential framework sets out recommendations for credit institutions to integrate environmental and social risk considerations in the management of credit risk, amongst others, through collecting relevant data, applying due diligence and as part of credit risk modelling (link). Similarly, the ECB Guide on climate-related and environmental risks in November 2020 (link) and the EBA report on management and supervision of ESG risks for credit institutions and investment firms in June 2021 (link) put forward expectations for credit institutions to integrate ESG aspects in their risk management, including as part of their loan origination and monitoring processes.

[138] If the borrower is already a client of the credit institution.

borrower provides the required technical documentation. The data and information that credit institutions could require from prospective borrowers may differ according to the type of asset or economic activity to be financed. In general, the eligibility assessment involves the collection of documents regarding the purpose of the loan and the economic activity where the proceeds will be allocated, the assessment of environmental benefits, and business model and strategy that could justify green financing.

In most cases, credit institutions differentiate between standard green loans and non-standard green loans. This classification determines credit institutions' collection of information and documents along the loan origination and monitoring process.

Standard green loans finance assets or economic activities with a clear link to institution's eligibility criteria such as through the information on the energy efficiency of the asset that is related to the economic activity. These loans are typically those financing the purchase of energy efficient real estate, real estate renovations and energy efficient vehicles. The information requirement in these cases is usually limited to the energy rating of the asset.

Non-standard green loans require bilateral engagement with the borrowers to determine the exchange of relevant information and tailored contractual agreement specific to the economic activity. Specific criteria and information required as part of the loan origination and future loan agreement are set within specialised committee in the institution. Borrowers are typically required to provide verification and due diligence documents for the economic activity being financed, e.g. documentation on the projects, investment plans, third-party verified environmental impact assessment. Furthermore, prospective borrower's communication to the credit institution could also include, as per credit institution's request, its sustainability targets and plans as well as management of environmental risks, e.g. physical risk and transition risks as part of the climate change-related financial risks.

The origination of general-purpose green loans to pure play companies requires the collection of financial information such as share of profits from sustainable activities in the overall activities, capital expenditure and operational expenditure. In some cases, institutions also assess the overall sustainability commitments of the borrower including their transition plans and non-financial public reporting.

In general, credit institutions request information from prospective borrowers proportionate to the value of the loan, complexity of the economic activity, as well as the nature and size of the borrower.

In the case of a green mortgage financing the acquisition of an existing or construction of a new energy-efficient property, the application form may also need to capture the information in the EPC of the property and/or other relevant aspects, for example, the building and insulation material for construction and (no) fossil fuels for the use of the asset. For a green mortgage to retrofit an existing property, the form may need to capture details of the proposed energy improvement works. In

practice, such information is provided by licenced professionals and/or certified by national/local quality standards.

Creditworthiness assessment

Credit institutions are required to carry out creditworthiness assessment of the borrower based on the financial information provided.[139] Often, the eligibility assessment of an economic activity for a green loan is carried out separately from the borrowers' creditworthiness assessment. However, some institutions also consider the sustainability features of the economic activity and the overall sustainability commitments of the borrower in the creditworthiness assessment and later in the risk assessment. In these assessments, the sustainability features of the economic activity in question, e.g. energy efficiency of the asset, as well as climate change-related risks to properties, are considered by some credit institutions, since they may be relevant to the value of the property and repayment capacity of the prospective borrower, for example, through the impact of energy cost on disposable income. The assessment of the repayment capacity of the borrower is standardised for standard green loans and customised for non-standard green loans, as mentioned above attached to the credit agreement.

Pre-contractual information

In the case of mortgages, under the MCD the prospective borrower will typically be provided with pre-contractual information about the mortgage in a standardised form.[140] The ESIS[141] for a mortgage would describe the key information including, among others, the main features of the loan, such as interest rate and other costs, frequency and number of payments, amount of each instalment, and additional obligations associated with the offer. Similarly, for personal loans falling under the CCD, the prospective borrower should receive the information at pre-contractual phase about the credit agreement and be provided with the Standard European Consumer Credit Information (SECCI) form set out in Annex II of the CCD. The SECCI should include, inter alia, information about the type of credit, total amount of credit and conditions governing the drawdown, the borrowing rate, and the interest rate linked to the credit agreement.

Credit decision and loan agreement

Agreement on the contractual arrangements could include, among others, specification on the management of proceeds. Contractual agreement may require a separate account dedicated to green loans for the entire amount or for green tranches of the loan, where applicable. Terms and conditions of the contractual agreement may also include covenants related to the green elements

[139] For example, see section 5.2 of the EBA Guidelines on loan origination and monitoring (EBA/GL/2020/06) (link).

[140] In accordance with Directive 2014/17/EU of the European Parliament and of the Council of 4 February 2014 on credit agreements for consumers relating to residential immovable property (OJ L 60, 28.2.2014, p. 34–85).

[141] As included in Annex II to Directive 2014/17/EU of the European Parliament and of the Council of 4 February 2014 on credit agreements for consumers relating to residential immovable property (OJ L 60, 28.2.2014, p. 34–85), ESIS is the standardised pre-contractual disclosure document that is produced by the lender and contains key legal information relating to the loan.

of the loan agreement, such as expected increase in the energy efficiency or reduction in CO2 emissions associated with the asset. In some cases, the green loan agreement is a conventional loan agreement complemented by an accompanying contract specifying the sustainability conditions and requirements attached to the loan. Similarly, a separate set of terms and conditions may be required for a green mortgage product to explain when certain contractual conditions apply, such as when a discounted interest rate applies or the process for claiming cashback.

Monitoring

At portfolio level, credit institutions tend to monitor the overall performance of green loans via a set of sustainability-related metrics, e.g. reduction in GHG emissions or energy consumption. Where needed[142], the borrower reports regularly to the credit institution up-to-date information on the use of proceeds as part of the monitoring process[143]. Credit institutions can assess whether the proceeds have been allocated in line with the terms and conditions of the green loan agreement. When the green loan relates to the post-project energy performance of the asset, this would require evidence on the use of proceeds throughout the lifecycle of the loan, e.g. in the form of invoices, EPC and related information, or energy bills. The process would also contribute to the external reporting of the credit institution on the allocation of proceeds towards defined lending areas, eligible projects and loan types, and impact analysis against defined environmental objectives and targets.

At the point of green loan origination, credit institutions request additional documentation for their assessment, verification and monitoring (Figure 25). This is needed to assess, monitor and verify over time the sustainability features of the economic activity and/or asset related to the loan request.

For standard green loans, institutions do not tend to implement a regular monitoring process. If the standard loan is classified as green, it remains green until the technical document supporting the green loan remains valid, for example the expiration date of EPC. Once a document is no longer valid, the asset and the eligibility of the loan is reassessed following the issue of the updated information.

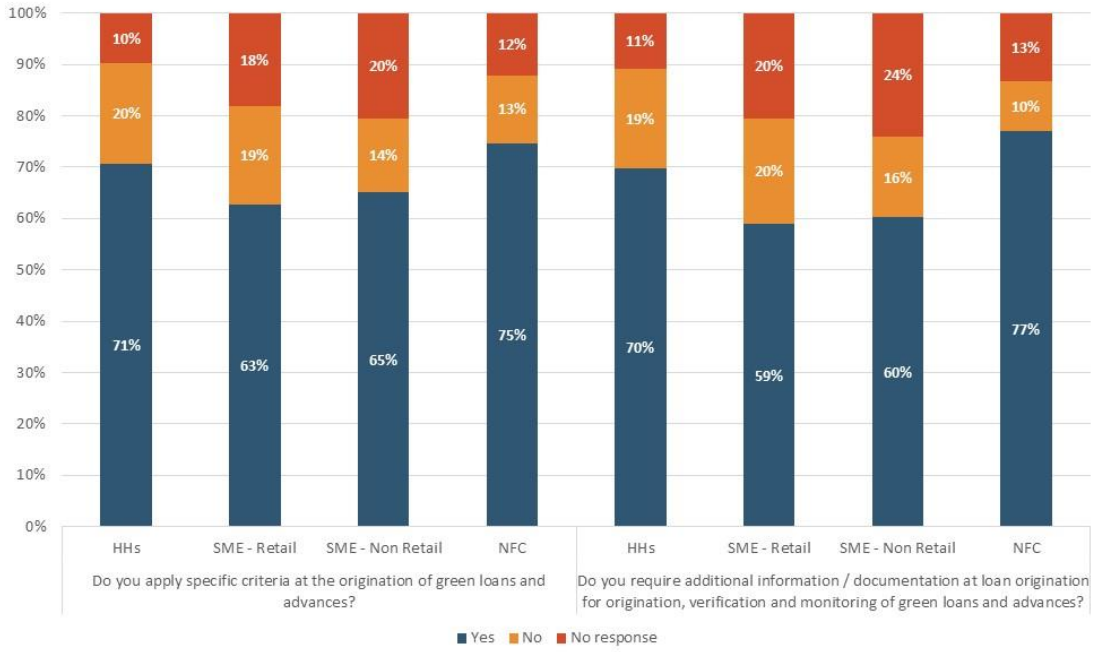
Non-standard green loans are monitored regularly, typically on an annual basis. As in the loan origination process, monitoring of the green loan requires bilateral engagement with the borrower and customised documentation requests which would require expert approval on the development and impact of the project.

[142] For example, in the case of an infrastructure project finance for large corporates or construction of a residential real estate for households.

[143] Regular credit review may be applicable to large corporates on an annual basis only. Such monitoring may be more frequent for other green loans in order to verify that the allocation of proceeds is in line with the contractual agreement.

When it comes to green general-purpose lending to pure-play companies, monitoring process usually involves the regular assessment of financial information such as operational expenditure and capital expenditure as well as the projects financed by the company.

Figure 25 Credit institutions requiring specific criteria and information at green loan origination



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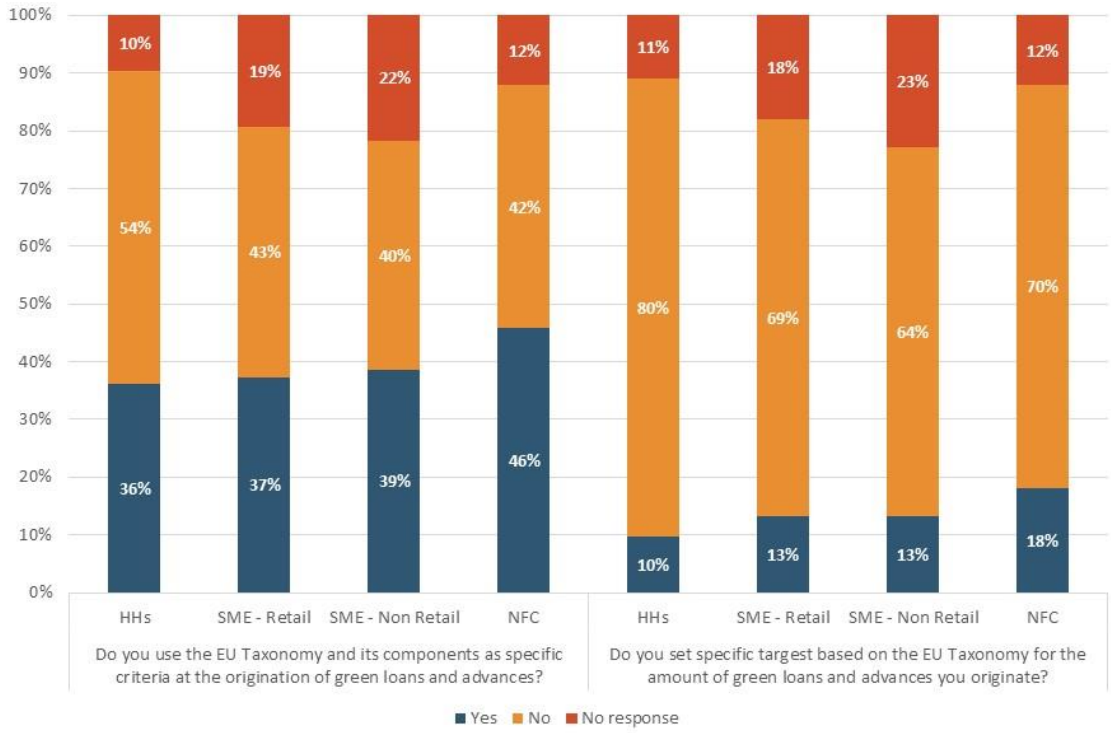
The EU Taxonomy and its components are used as additional specific criteria at the origination of the loan and advances only in some cases (Figure 26). Credit institutions use the criteria of the EU Taxonomy to assess the eligibility of economic activities in selected lending areas such as electric vehicles, renewable energy, acquisition, construction and renovation of buildings. Furthermore, only some credit institutions set green lending targets based on the EU Taxonomy (Figure 26). The targets are defined in terms of volume of bond proceeds to be allocated towards green lending, which is mainly to improve the green asset ratio as part of the Taxonomy disclosure requirements.

Against this background the EBA will consider guidelines for credit institutions, and potentially other lenders that are not credit institutions, on their green loan origination and monitoring process, including on the borrower's creditworthiness assessment and related data collection. Such further specification can be incorporated following the review of the existing EBA Guidelines on loan origination and monitoring (EBA/GL/2020/06). The objective of such initiative would be to provide clarity in the sustainable lending framework and create harmonise practices in markets. Such an initiative would also consider the European Commission's further actions in this area, among others, based on the recommendations presented in this report to ensure consistency and avoid any overlap in regulatory and non-regulatory initiatives.

Figure 26 Credit institutions using the EU Taxonomy for loan origination and specific targets



Sample of 83 institutions

Box 2 Credit institutions' green loans financing residential immovable property and the integration of sustainability features in existing regulatory framework

The analysis in this report shows that credit institutions already offer green loans financing residential immovable property and mortgages and member states support the uptake of green mortgages through a variety of financial support schemes.

Sustainability aspects of economic activities and assets are becoming increasingly important and considered in lending. As mentioned earlier, the EBA Guidelines on loan origination and monitoring already provide credit institutions with guidance on the integration of ESG factors in internal governance for credit granting and monitoring, and sustainable lending. In the loan origination process, the guidelines also state that credit institutions should consider, where relevant, sustainability aspects of the assets, such as their energy efficiency, in the creditworthiness assessment and including collateral valuation.

Environmental risks may affect both the collateral value and the solvency of borrowers and hence both the loss given default (LGD) and probability of default (PD) of these mortgage borrowers. These arguments are presented in recent EBA[144] and European Central Bank (ECB)/European

[144] See Section 5.1.1 of the EBA Discussion Paper on the role of environmental risks in the prudential framework (EBA/DP/2022/02), and the EBA Report on the role of environmental and social risks in the prudential framework (link).

Systemic Risk Board (ESRB)[145] analyses and also in the context of recent regulatory developments such as the review of the CRR[146].

Consequently, credit institutions are expected to take into consideration climate change-related transition and physical risks to properties used to secure loans in their risk assessment and management. Also, practitioners started to incorporate sustainability considerations in the valuation of immovable property.

In addition to the increasing importance of climate change-related transition and physical risks to immovable properties securing loans in risk management, the EPBD sets out, among others, the requirement to issue EPC for immovable property transactions.[147] As mentioned earlier, the recast EPBD also introduces the concept of 'mortgage portfolio standards', so that over time, credit institutions and other mortgage lenders increase the median energy performance of their real estate portfolios and encourage potential clients to make their immovable properties more energy performant.

Given these developments, it is reasonable and consistent that the MCD recognises the concept of green mortgages and incorporates the sustainability features of properties, e.g. the EPC, used to secure loans as part of the requirements.

Pre-contractual information as formulated in the ESIS could include information on the EPC[148], as well as, where possible, other relevant information[149], of the immovable property used to secure the loan. This would, firstly, introduce the elements of green mortgages in the MCD and provide a link between energy efficiency, and where relevant other sustainability features, of the property and any potential financial incentives that the credit institutions may provide under green loan agreement, such as preferential rate, longer maturity, maximum available loan amount relative to the value of the property. Secondly, the pre-contractual information would explain additional obligations with which the borrower must comply in order to benefit from specific conditions offered under the green mortgage agreement, such as the discounted mortgage rate, higher loan-to-value ratio or cashback for the eligible green mortgage. Such information at the pre-contractual level is also expected to improve transparency and start a dialogue between credit institutions and

[145] Section 3.2.2.2 of ECB/ESRB Project Team on climate risk Report, Toward macroprudential frameworks for managing climate risk, December 2023.

[146] Article 229 of the recast CRR (link to the provisional agreement).

[147] According to Article 12 of Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings (OJ L 153, 18.6.2010, p. 13), Member States shall ensure that an energy performance certificate is issued for buildings or building units which are constructed, sold or rented out to a new tenant.

[148] Most recent EPC information should be included, where available. However, in some instances such information may not be available at the pre-contractual phase of the transaction. In this case, the credit institution should clearly provide the financial terms and conditions for the agreement under both the condition that the property in question may be eligible for green mortgage depending on its EPC (and where applicable, other sustainability features) and the condition that the property is not qualified as a green mortgage.

[149] Credit institutions may have criteria in addition to the EPC of the immovable property such as those related to the construction and insulation material for the building.

prospective borrowers about potential further investment to increase the energy efficiency of the immovable property.

Furthermore, it is important that, as financial products, green loans ensure the highest standard of consumer protection throughout the lifecycle of the product. On this aspect, the following sub-section provides an overview of the relevance of product oversight and governance as well as a summary of the current practices in terms of their application.

Product governance

The introduction of a new financial product such as green loans may result in causing detriments to consumers if financial institutions fail to comply with the highest standards of business conduct, undermining trust in markets and hindering their stability. Furthermore, misconduct can give rise to direct costs for financial institutions as a result of measures imposed for breaches of rules. The product governance of mortgages and other loans may also be subject to mis-selling strategies, which in the case of green loans may also be further augmented due to the complexity of the process and products.

To address the risks emanating from misconduct, the EBA has developed the Guidelines on product oversight and governance (POG), setting out internal arrangements for the design, marketing and life-cycle maintenance of retail banking products and services.[150] These arrangements should ensure that products are designed, in principle, to meet the interests, objectives and characteristics of a certain type of consumers (the target market), while taking into account factors such as the financial capability of the target market. The arrangements should also identify any need to modify/replace existing product when they no longer meet the interests, characteristics, and objectives of the target market for which the product was conceived. Subsequently, manufacturers (of financial products) should periodically assess (i) that the internal product oversight and governance arrangements are being duly complied with; (ii) that the internal POG arrangements are still valid and up to date; and (iii) whether the specifications of particular products continue to meet the interests, objectives and characteristics of the target market for which they were designed.

The industry survey indicates that approximately 78% of credit institutions apply approval processes, including POG procedures, to their green loans and mortgages. The practices emerged among the credit institutions responding in the affirmative and can be summarised into three main groups.

A first group of credit institutions indicated that they have a specific internal committee set up for the approval of green financing standards and products, as well as further eligibility criteria.

[150] The EBA Guidelines on product oversight and governance arrangements for retail banking products (EBA/GL/2015/18) (link).

The second group of credit institutions highlighted that green loans and mortgages are subject to all POG procedures in line with all other new products and also undergo other types of processes, such as:

- another review and approval step, mostly carried out by ESG staff;
- another approval from a special committee;
- enhanced and more frequent compliance assessments by legal and controls departments, to ensure alignment with the most recent applicable legislation; and
- setting up a dedicated committee for sustainable objectives involved in the green products assessment/approval.

A third group of credit institutions replied that green loans and mortgages are subject to the review and approval procedures as any other retail products, including testing by internal departments vis-à-vis the benchmark of fair treatment of consumers, and setting-up a call-centre for queries and complaints.

Finally, few credit institutions indicated that bodies designed to specifically approve newly originated green loans are being setting up.

Policy advice

11. The EBA recommends that, as part of its review, the MCD integrate the concept of green mortgages, e.g. its key sustainability features such as the energy performance, consistent with the overall policy framework on sustainable finance.
12. In the MCD review, the EBA recommends the introduction of the information related to the sustainability features of residential immovable property securing the loan. This should include, at minimum, the EPC of the asset in order to establish, where applicable, a potential link between the EPC and the financial terms of the offer, as part of Annex II of that Directive.
13. In the MCD review, the EBA recommends further considerations to include additional requirements for staff on competence and knowledge related to green mortgages in Annex III of that Directive.
14. Subject to the European Commission's request and as part of the future review of the recast CCD[151], the EBA may assess credit institutions' and potentially other non-bank lenders' green loans in the context of this Directive and propose further considerations for the integration of sustainability features in its scope.

[151] According to Article 46(1) (c) of the recast CCD.

6. Annex I

6.1 EU Taxonomy and its key features

The Taxonomy Regulation establishes six environmental objectives:

1. Climate change mitigation
2. Climate change adaptation
3. The sustainable use and protection of water and marine resources
4. The transition to a circular economy
5. Pollution prevention and control
6. The protection and restoration of biodiversity and ecosystems

It also sets out four overarching conditions that an economic activity has to meet in order to qualify as environmentally sustainable. Accordingly, an environmentally sustainable economic activity has to:

1. contribute substantially to one or more of the six environmental objectives,
2. do no significant harm to any of the environmental objectives,
3. meet 'minimum safeguards', and
4. comply with the technical screening criteria defined in subsequent complementary regulatory products.

Delegated acts[152] adopted to complement the Taxonomy Regulation set out technical screening criteria for defining what it means to make a 'substantial contribution' to an environmental objective and what it means to 'do no significant harm'.[153]

[152] Climate change mitigation and climate change adaptation: Commission Delegated Regulation (EU) 2021/2139 (OJ L 442, 9.12.2021, p. 1–349) and C(2023) 3850 Final (Commission Delegated Regulation amending (EU) 2021/2139); other environmental objectives: C(2023) 3851 Final (Commission Delegated Regulation supplementing Regulation (EU) 2020/852).

[153] They correspond respectively to the first and the second components presented above.

6.2 Sample description

Figure 27 Sample: Participation by country

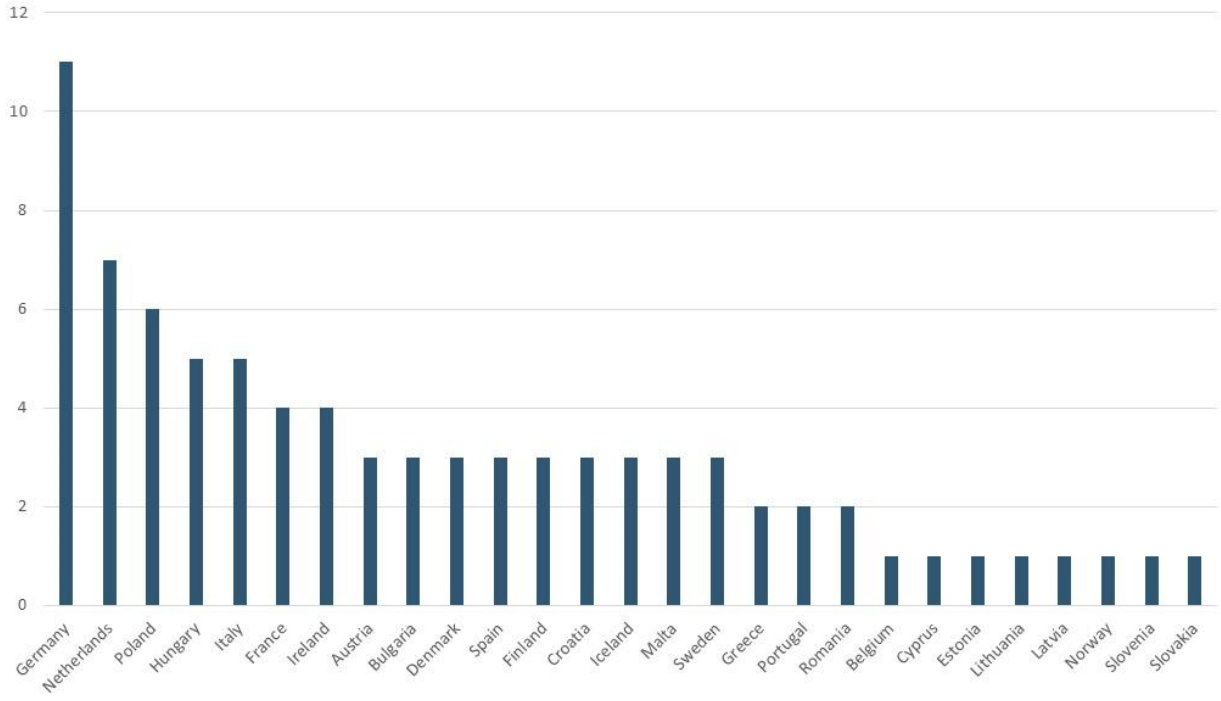


Figure 28 Sample: Asset coverage

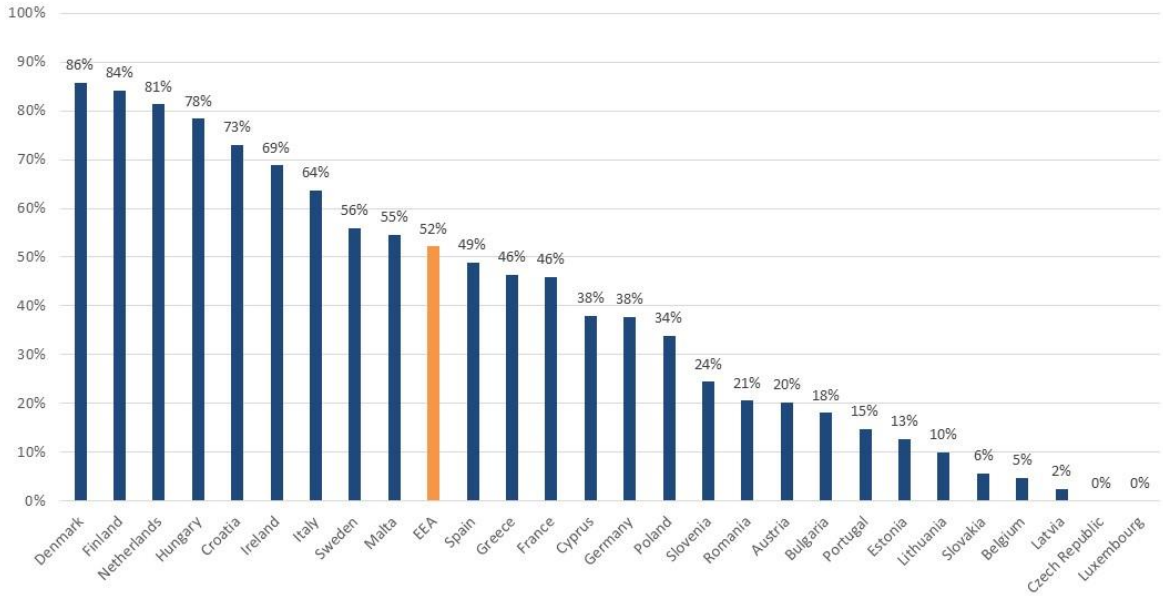
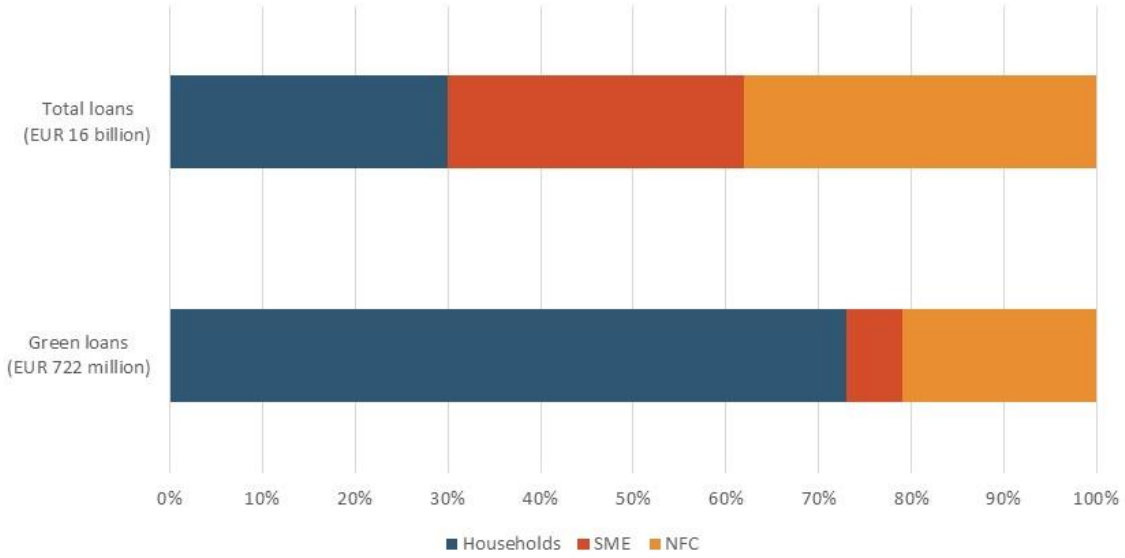


Figure 29 Overview of total loans and green loans of credit institution in the sample



6.3 Market overview on green loans

Figure 30 Share of green lending by product

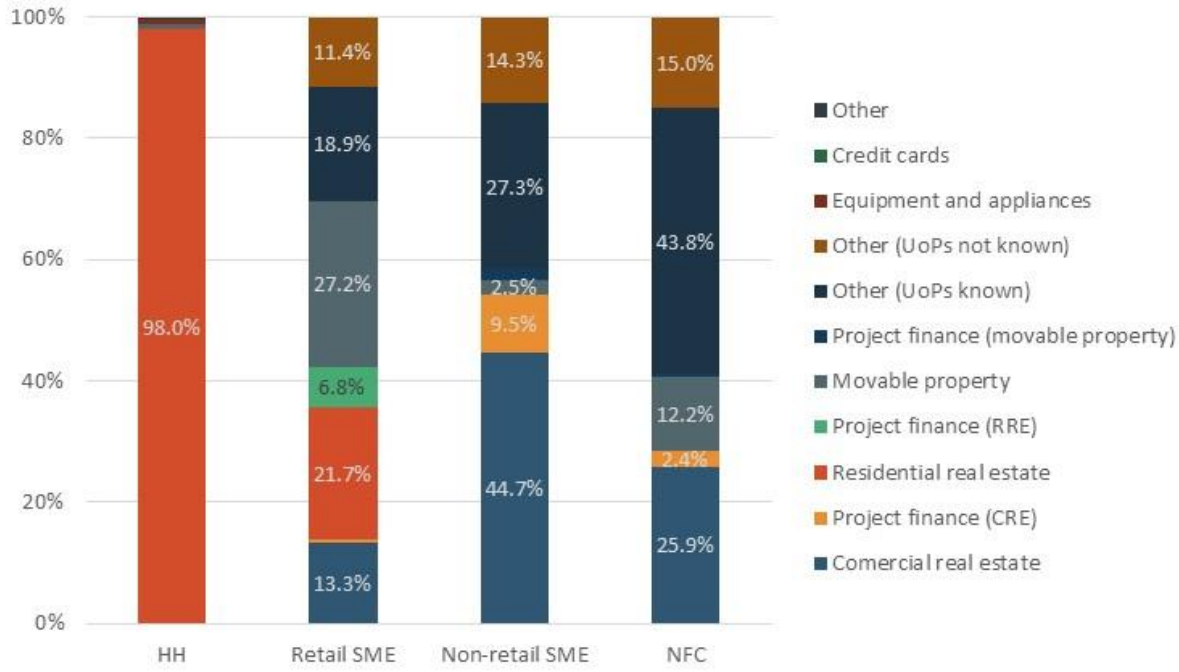


Figure 31 Distribution of the share of green loans by institution

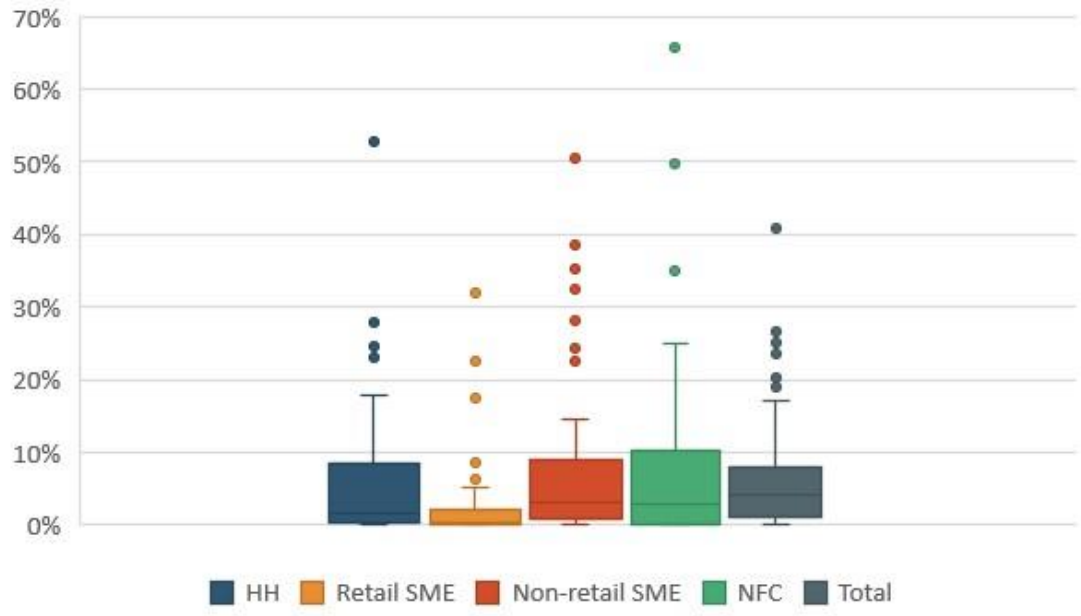


Figure 32 Retail lending: exposure classification of green loans by approach (number of credit institutions) (HH left – retail SMEs, right)

Figure 33 Non-retail lending: exposure classification of green loans by approach (number of credit institutions) (non-retail SMEs left – NFCs, right)

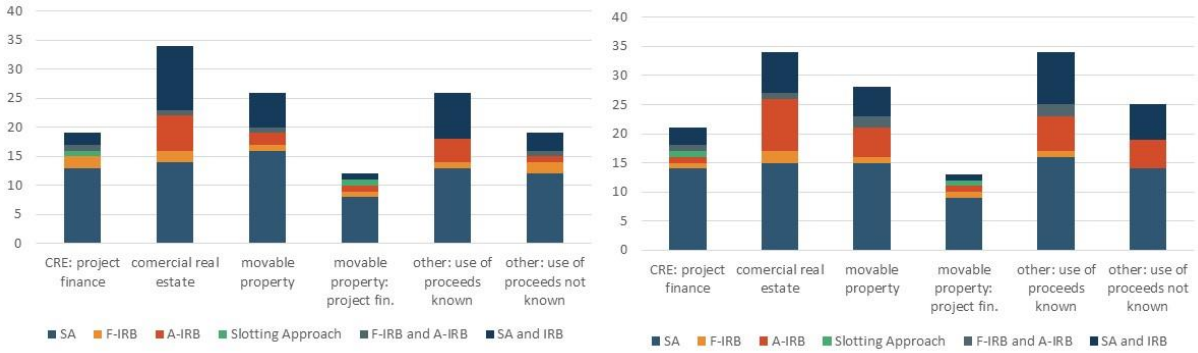


Figure 34 Bank-by-Bank estimated average credit risk weights for RRE loans to households (X-axis represent banks)

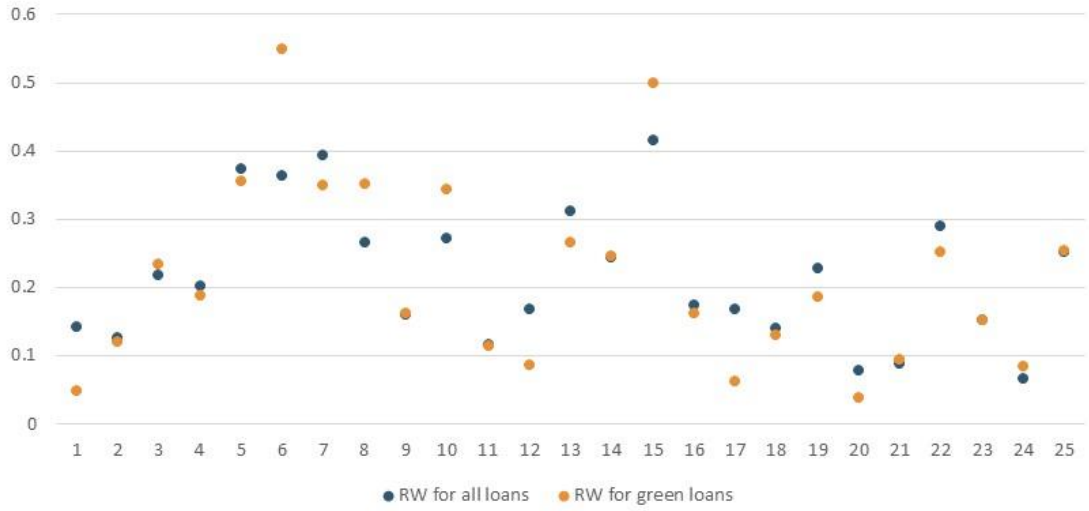


Figure 35 Bank-by-bank estimated average credit risk weights for CRE loans to retail SMEs (X-axis represent institutions)

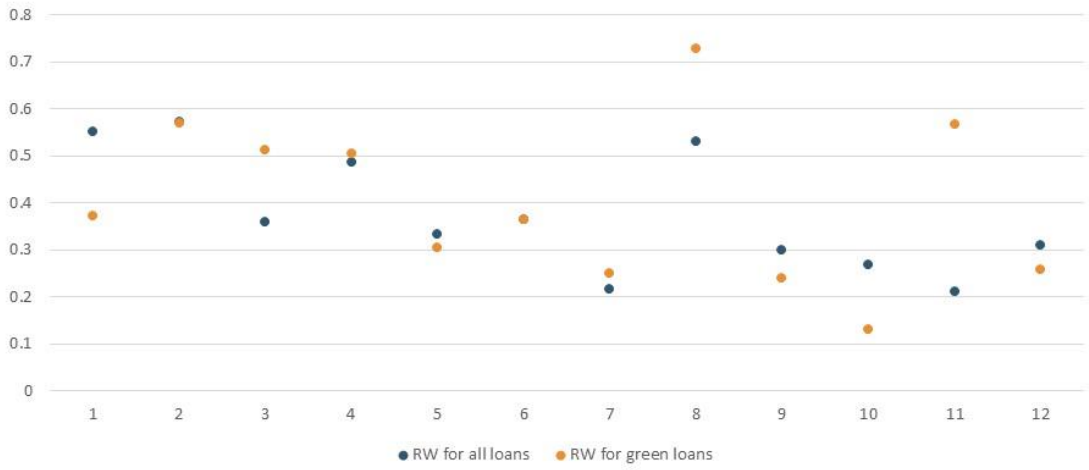


Figure 36 Bank-by-bank estimated average credit risk weights for CRE loans to NFCs (X-axis represent institutions)

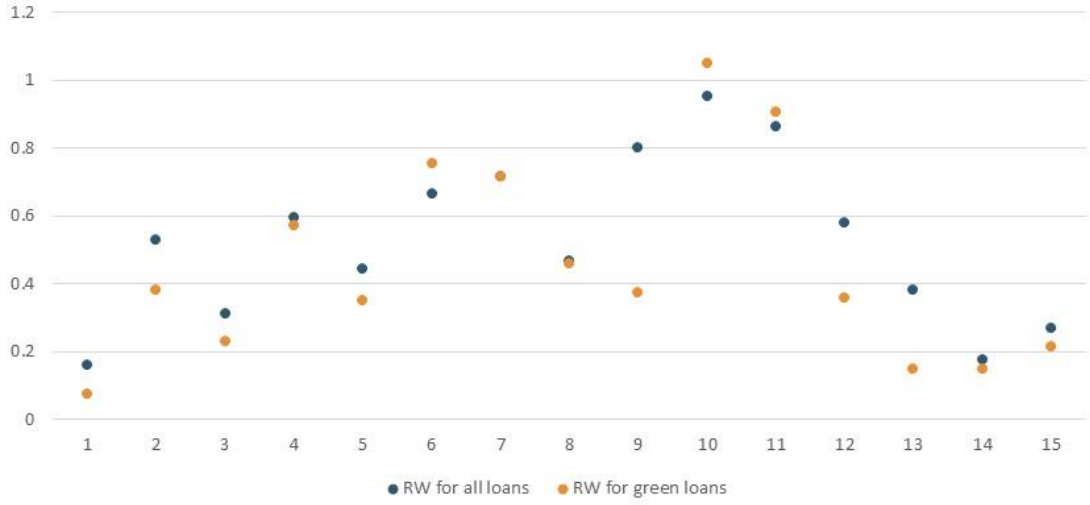


Figure 37 Main incentives for the growth of green loan markets (order of statistics: Households, SMEs and NFCs)

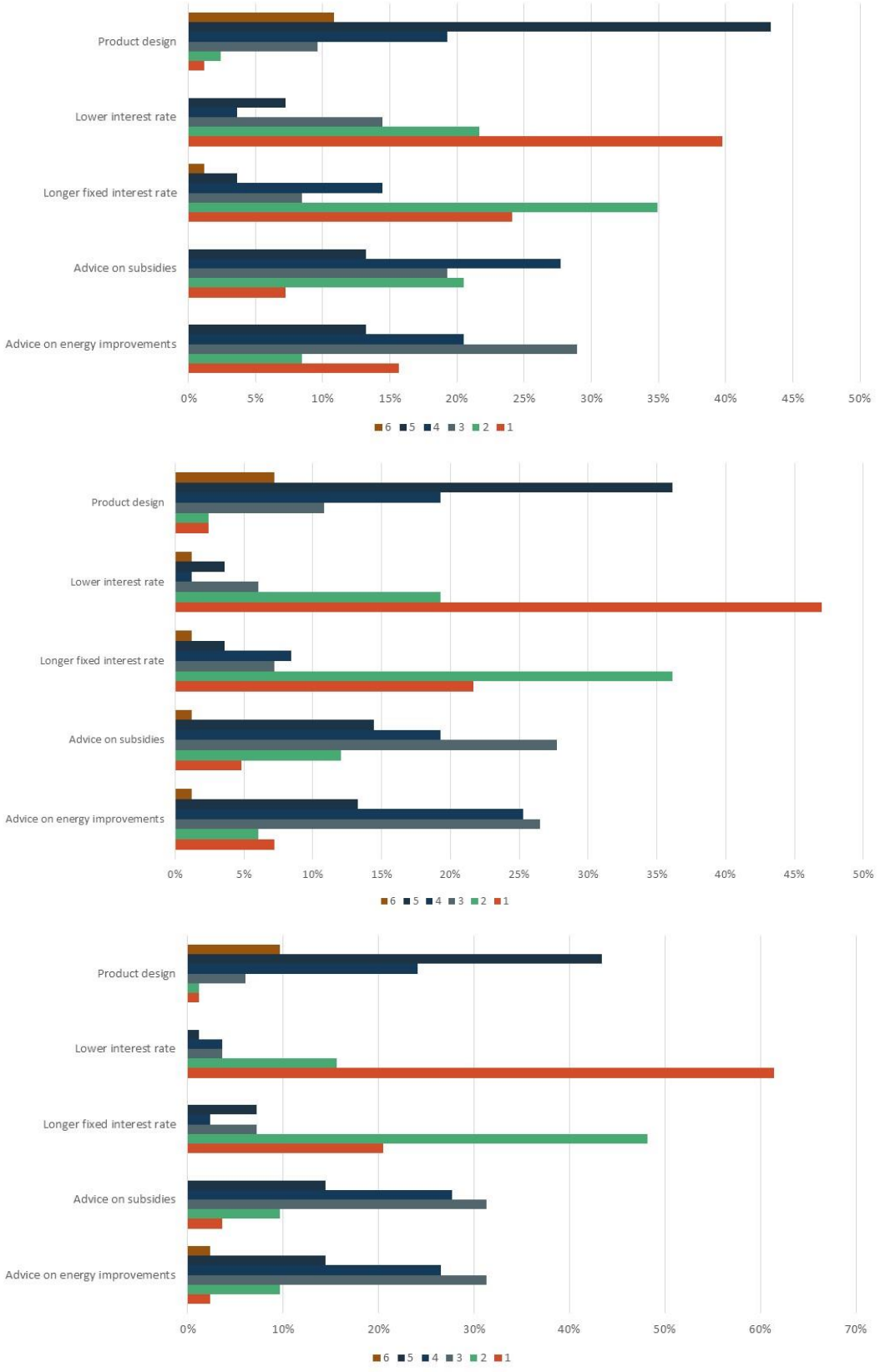
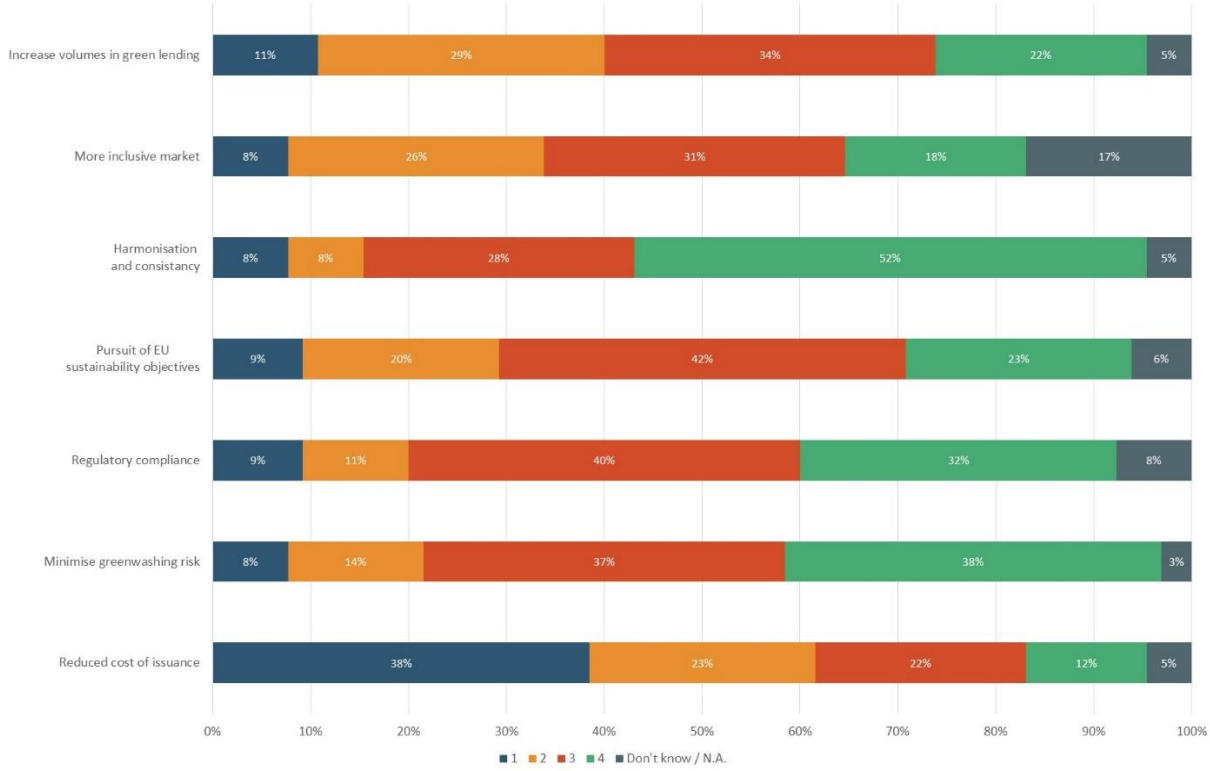


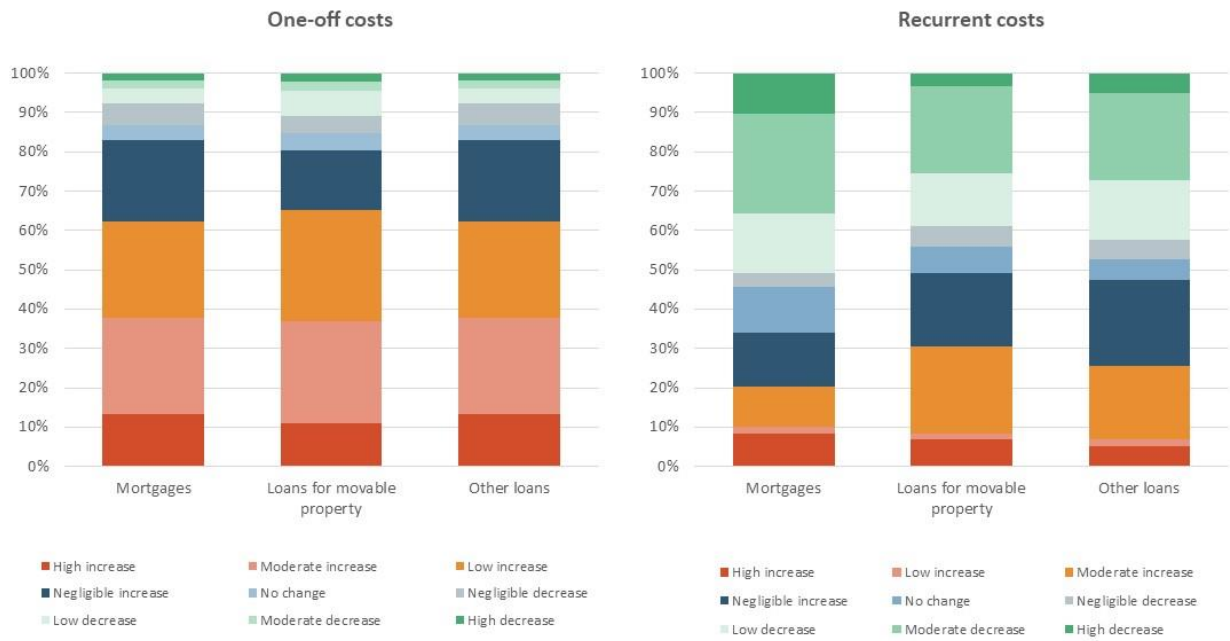
Figure 38 Benefits of a common EU label for green loans



Sample of 65 institutions

Note: Institutions are asked to what extent they agree with the expected benefits of a common EU label for a green loan, being 1 'Not at all', 2 'To some extent but not much', 3 'To a reasonable extent', 4 'To a great extent'.

Figure 39 Expected change in one-off and recurring costs of originating and monitoring green loans to households due to the introduction of a harmonised EU label (percentage of total responses)



Sample of 60 institutions

Figure 40 Expected change in one-off and recurring costs of originating and monitoring green loans to SMEs due to the introduction of a harmonised EU label (percentage of total responses)

Sample of 60 institutions

Table 1 Examples of public schemes to support sustainable lending

Type	Country	Name	Overview
Households – Energy efficiency (purchase of green buildings and renovation of existing buildings)			
Public guarantees and subsidies	Belgium	Flemish renovation loan	In the Flemish region of Belgium, households can access interest-subsidised renovation loans to cover the work required to improve energy performance of newly acquired properties. Subsidies are provided by the regional authority on the interest paid for renovation loans granted by credit institutions. Borrowers are eligible for premia in terms of interest rate discounts based on the achieved energy level of the building.
	Estonia	KredEx housing loan guarantees	KredEx, public Estonian development bank, offers public loan guarantees to partner credit institutions to support households in purchasing energy-efficient buildings or renovating existing buildings to improve their energy efficiency. Buildings qualify as green according to the institutions' internal criteria.
	Germany	KfW loans for climate-friendly new constructions and energy-efficient refurbishment	KfW (Kreditanstalt für Wiederaufbau) German national promotional bank offers subsidies to households in the form of preferential interest rates over a portion of loan maturity and in the form of reduced capital repayments. Based on the energy level of the building, borrowers are eligible for premia in terms of capital amounts that can be borrowed and in terms of subsidies for capital repayments. The identification of green buildings depends on institutions' internal criteria.
	Greece	Save – Renovate for Youth	Targeted households receive grants and interest subsidised loans to improve the EPC class of their own residential properties.
	Netherlands	Investeringssubsidie duurzame energie en energiebesparing (ISDE) and VvE Energiebespaarlening	The National Heat Fund, operating on behalf on the central government, offers subsidised loans to improve every owner-occupier's home energy efficiency. The subsidised loan is accessible by any owner-occupier, regardless of the age of the owner-occupier. Borrowers with low income and limited borrowing capabilities are offered zero-interest loans and energy-savings subsidised mortgages.
Preferential financing condition	France	Eco-prêt à taux zero (ECO-PTZ)	Credit institutions having tax liabilities in France can offer publicly subsidised loans to support the energy transition of residential real estate. The scheme is based on a legal agreement between the credit institution and the national authority where the former can grant loans financing renovation works that meet specific energy performance criteria set by the national regulation. The borrower is not liable for the interest payments on the loan. Subsidised interest payments will take the form of a tax credit from the public authority towards the credit institution.
	Portugal	Casa Eficiente	The program 'Casa Eficiente', co-financed by participating credit institutions and the European Investment Bank, aims to grant loans to households and SMEs for real estate renovation at favourable conditions,

Type	Country	Name	Overview
			based on improved sustainability performance of the buildings.
Tax relief	France	Grants for energy conservation works – Reduced VAT	Households can benefit from reduced tax rates on energy renovation works for residential real estate.
	Italy	Superbonus 110%	Public subsidies are offered in the form of a tax deduction corresponding to a pre-determined rate of the overall renovation and restructuring expenses incurred for residential real estate, up to a set maximum amount. The renovation work should meet specific technical requirements set by the national regulation. A tax deduction can be realised through annual instalments, or it can be converted into an invoice discount or a tax credit that can be transferred to credit institutions or other non-bank lenders.
SMEs and large corporates – Energy efficiency (various activities)			
Public guarantees and subsidies	Croatia	Loans and guarantees by Croatian Bank for Reconstruction and Development (HBOR)	HBOR, the state development and export bank, offers several financial instruments (loans, guarantees, equity financing) developed within the National Recovery and Resilience Plan to support green and digital transition of the public and private sector. Financial instruments have a horizontal approach that enables micro, small, medium and mid-cap entities from different sectors (manufacturing, tourism, services etc.) receiving more favourable financing terms for green and digital projects. All projects supported within the financial instruments have to be in line with the 'do no significant harm' principle and projects that meet the EU Taxonomy substantial contribution criteria can reach even more favourable financing terms. Financial instruments involve cooperation with other private financial intermediaries (credit institutions, leasing companies, equity funds) thus enabling participation in the private sector and transfer of know-how in the market.
	Denmark	EIFO loans and guarantees	The Export and Investment Bank of Denmark (EIFO), public development bank, supports newly established companies and large enterprises with transition projects through guarantees on loans granted by credit institutions. In addition, EIFO contributes to green transition by directly granting publicly financed loans to large corporates up to a predetermined percentage of the overall investment. The loan from EIFO typically entails higher interest rates than those charged by credit institutions, due to high risks associated to the projects.
	European Union	Sustainable loans and guarantees by the EIB[154] Group	The European Investment Bank (EIB) offers a loan scheme targeting SMEs and companies with middle-size market capitalisation (mid-caps) through the EIB Multiple Beneficiary Intermediated Loan. Funds are allocated by EIB financing partners to economic activities that are aligned with the EIB eligibility criteria. Those criteria can

[154] The European Investment Bank (EIB) and the European Investment Fund (EIF).

Type	Country	Name	Overview
			be assessed via the online Green Eligibility Checker[155]. The EIF offers several pan-European portfolio (counter-) guarantee schemes under the EU's InvestEU Programme, focusing on sustainability. The Sustainability Guarantee Product provides loan guarantees for SMEs and small mid-caps (as well as natural persons, housing associations) supporting the EU Taxonomy objectives. It is provided to EIF financing partners that have applied to the product under an open call for expression for economic activities that are aligned with the product's eligibility criteria, which is supported by an online tool[156]. In addition, the EIF offers sustainability guarantee products in several EU member states that have mandated their Recovery and Resilience Facility or Structural Fund resources to European Investment Fund (EIF) to manage. Also, the EIF is promoting climate finance through asset backed securitisation by requiring e.g. part of the additional portfolio to be build up to meet climate criteria.
	France	Prêts sans garantie and prêt d'économie d'énergie	BPI France, French public development bank, offers loans without guarantees, co-financed by partner credit institutions. Such green loans aim to support companies to optimise their process to reduce their environmental impact, to invest in zero-carbon mobility and products or services preserving the environment or greening the energy mix. In addition, energy saving loan specifically target SMEs engaging an investment program eligible to energy saving certificates for industry and buildings.
	Netherlands	BMKB-Groen	SMEs can access SME green credit guarantee scheme, which specifically targets investments in economic activities improving sustainability. The programme offers higher guarantees to partner commercial credit institutions and to other financing institutions based on technical criteria set by the national regulation. The programme also includes reduced fees and commissions on the loan and can grant access to tax deductions conditional on the achievement of specific energy efficiency criteria.
	Poland	PKO Leasing	The programme supports the development of a zero-carbon emission automotive market. The programme allows business to obtain subsidies for the initial payment of leasing or long-term rental of vehicle operating with electric or hydrogen power.
	Portugal	Linha de Crédito para a Descarbonização e Economia Circular	Banco Português de Fomento, state-owned financial company, promotes green credit schemes to SMEs and microenterprises to support the financing of projects aiming to reduce energy consumption, shift from fossil fuel to renewable energy sources or accelerate the

[155] The Green Eligibility Checker is an online free tool offered by the EIB Group to financial intermediaries (link). It returns a report containing the green eligibility assessment and estimated climate impact. The report can be used for intermediaries' internal discussions or to inform clients about the green impact of their projects.

[156] See EIF INVESTEU Sustainability Guarantee (link).

Type	Country	Name	Overview
			transition to a circular economy. The programme provides public guarantee schemes on loans granted by participating credit institutions and includes reduced fees and commissions on the loans.
	Sweden	Credit guarantees for green investments	The Swedish National Debt office issues state credit guarantees for new loans originated by credit institutions towards large corporates with the objective to finance industrial investments as part of the national climate agenda. The assessment of the economic activity for the investment is based on the technical criteria set out in the national regulation.
Preferential financing condition	Germany	Klimaschutzoffensive für Unternehmen	KfW, through partner commercial banks, offers climate-friendly loans to companies to encourage carbon-neutral investment aligned with the EU Taxonomy. The scheme targets investments that promote the reduction of GHG emissions, in accordance with the technical screening criteria of the EU Taxonomy. The scheme combines public guarantees with fixed and preferential interest rates over a specific part of the maturity of the loan.
	Ireland	Energy Efficiency Loan Scheme (EELS)	The Strategic Banking Corporation of Ireland (SBCI), Irish public development bank, offers through its commercial partners the EELS, guaranteed by the European Fund for Strategic Investment (EFSI). The scheme supports primary producers and SMEs by providing access to guaranteed long-term finance with preferential interest rates to improve the energy efficiency of their economic activity. Eligibility of the project is assessed based on a set of technical criteria set by the SBCI.

Table 2 An example of green lending areas and link with the EU Taxonomy

Green loan category	Economic activity corresponding to Annex I of Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 (corresponding section in Annex I)
Renewable energy	Manufacture of renewable energy technologies (3.1)
	Manufacture of hydrogen (3.2)
	Electricity generation using solar photovoltaic technology (4.1)
	Electricity generation using concentrated solar power (CSP) technology (4.2)
	Electricity generation from wind power (4.3)
	Electricity generation from geothermal energy (4.6)
	Electricity generation from bioenergy (4.8)
	Transmission and distribution of electricity (4.9)
	Storage of electricity (4.10)
	District heating/cooling distribution (4.15)
	Cogeneration of heat/cool and power from bioenergy (4.20)
	Production of heat/cool from geothermal energy (4.22)
	Production of heat/cool from bioenergy (4.24)
Green buildings / sustainable real estate	The construction of new buildings (7.1)
	The renovation of existing buildings (7.2)
	The acquisition and ownership of buildings (7.7)
Clean transportation	Passenger interurban rail transport (6.1)
	Freight rail transport (6.2)
	Urban and suburban transport, road passenger transport (6.3)
	Transport by motorbikes, passenger cars and light commercial vehicles (6.5)

Green loan category	Economic activity corresponding to Annex I of Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 (corresponding section in Annex I)
	Freight transport services by road (6.6)
	Inland passenger water transport (6.7)
	Inland freight water transport (6.8)
	Sea and coastal passenger water transport (6.11)
	Infrastructure enabling low-carbon road transport and public transport (6.15)
Recycling and sustainable production	Manufacture of plastics in primary form (3.17)
	Production of heat/cool using waste heat (4.25)
	Construction, extension and operation of water collection, treatment and supply systems (5.1)
	Renewal of water collection, treatment and supply systems (5.2)
	Construction, extension and operation of wastewater collection and treatment (5.3)
	Renewal of wastewater collection and treatment (5.4)
	Collection and transport of non-hazardous waste in source segregated fractions (5.5)
	Material recovery from non-hazardous waste (5.9)
Energy and emission efficient product	Manufacture of energy efficiency equipment for buildings (3.5)

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