









The Financial Case for Green Tagging, Steps to Catalyze the Finance Market for EE



 Green Tagging refers to a systematic process whereby banks identify the environmental attributes of their loans and underlying asset collateral as a tool for scaling up sustainable finance.



There would be a leap in market transparency on the flows of finance to energy efficient assets and products

This data could provide valuable information
on the portfolios of energy efficient loans
that could be packaged as asset backed
securities into green bond

It would provide the basis for evaluating the financial performance of **energy efficient** loans relative to their inefficient alternatives

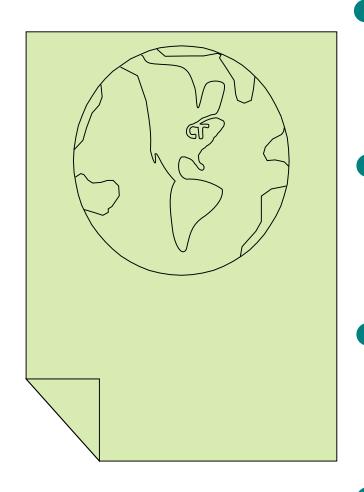


The Financial Case for Green Tagging



Global Dimension





The **gap** between what is **being financed** and **what is needed** is considerable.

UN SEforAll estimates that US\$560 billion a year is needed to double the global rate of EE improvements – but only around US\$200 billion is currently being deployed

Interest is also growing in the so **far largely untapped potential for issuing green bonds** backed by energy efficient buildings and vehicles.

The **green bond market** has seen exponential growth over the past few years, from **US\$ 11 billion** of annual issuance in **2013** to surpassing the **US\$ 100 billion** landmark in November **2017**.

European + National Dimensions



Europe needs €180 billion in additional annual clean energy investment, three quarters of which is required for EE in buildings, to keep the increase in global temperatures to well below 2 degrees Celsius.

Making this happen will require **European banks** to better understand the **environmental performance** of their housing **loan book**.

France: Disclosure. Article 173 of the Energy Transition law28 requires listed companies and FIs to show how their activities are aligned to a low-carbon economy.

The UK: Green mortgages: Policymakers are also increasingly focused on how to encourage green mortgages to close the energy efficiency investment gap.

Current Practice in Green Tagging: Results from the European Bank Working Group



 10 European banks took part in a 20-question survey and review process during 2017:

Bank Survey Addressed 3 Main Areas:

Separating the broad Green Tagging concept into its component parts



Berlin Hyp







A deep-dive into the use and potential for green tagging residential mortgages and commercial real estate loans

















A set of forward looking questions designed to orient thinking through the regulatory context for green tagging and connect to other initiatives working in this space.



Results from the European Banking Survey

Current Practice in Green Tagging: Internal Leadership & Interest and Implementation



Observed level of interest in Green Tagging by different bank departments



- Leading the interest in green tagging is commercial real estate where over half of banks noted that a green taxonomy was already being used.
- Debt Capital Markets also leads in interest as well as units which work with large businesses and corporates.

Current Practice in Green Tagging: Internal Leadership & Interest and Implementation



Ease of integration of Green Tagging in different bank departments



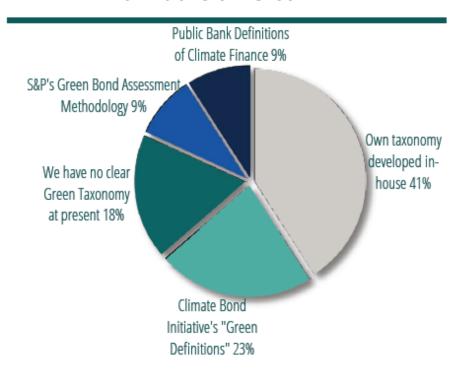
- There is a significantly stronger interest in green tags from the corporate and large business bank lending areas, than from those covering SMEs with banks suggesting it would be significantly easier to
 - Implement **green tags** across their large corporate businesses (where five already do) than for loans to SMEs



Current Practice in Green Tagging: Definitions

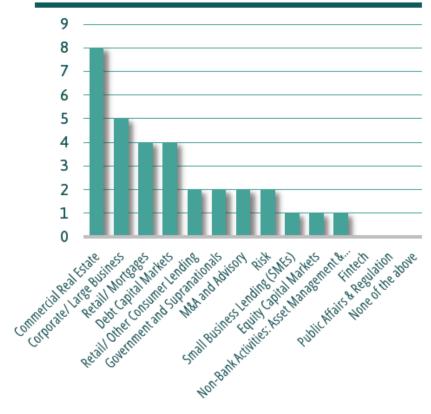


Definitions of "Green"



Over 40% of responders note that their bank uses its own definition of "green" with the most popular external public definition set being those provided by CBI – and some of the own approaches also are influenced by these

Which Departments already use some definition of "Green"



The divergences in "green definitions" were explained by some banks because internally each sector and product has developed its own "sustainable business growth strategy".

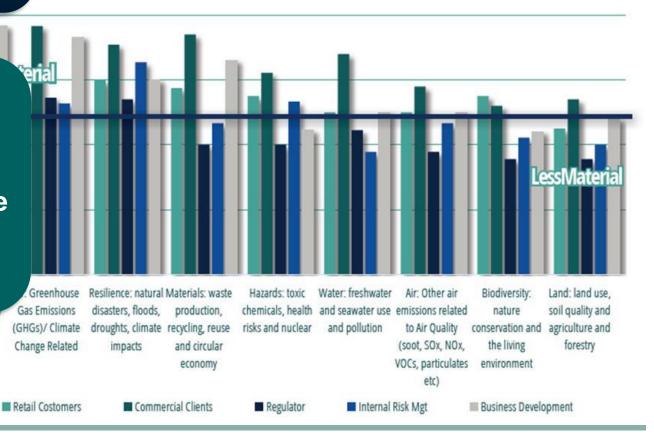
Current Practice in Green Tagging: Materiality



Banks' commercial clients represent the major pull factor for green tagging.

w Banks see the Materiality of Different Components of "Green" to different Stakeholders

For this reason, the business development teams show a similar materiality score for the leading green components.



Green Tagging in Commercial Real Estate

The drivers of this advance are:

- An increased access to green bond markets
- Increased value of green properties
- Improved climate disclosure

Value Drivers for "Green Tagging" of Commercial R

"Green tagging" of commercial real estate facilitates access to green bond markets

"Green Properties" are more valuable than non-Green ones

"Green tagging" of commercial real estate improves climate-related disclosure

Likely positive correlation between loan performance and energy performance of underlying building

Attaching "Green data" to commercial real estate loans enables better risk management

"Green tagging" of commercial real estate loans facilitates regulatory compliance

"Green labelling" of commercial real estate improves customer up-take and sale

And an expected positive correlation between loan performance and the energy performance of the underlying building

Green Tagging in Commercial Real Estate



While the barriers for greater deployment are weaker than the drivers

" of Commercial Real Estate



Green Tagging in Commercial Real Estate



There is a high correlation between the data provided by EPCs and that considered important by banks for "green tagging"

Mapping of Green Data for Commercial Real Estate



The energy data of the property is, in most banks, not required or captured in a mortgage record; and nor does creditworthiness appear in an EPC



Yet with the number of overlapping fields a correlation analysis would seem easily executable.

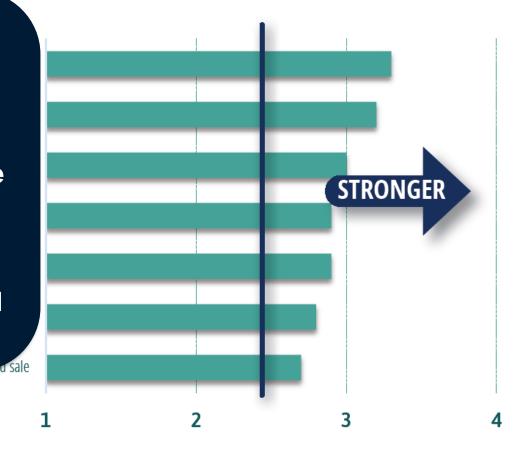
Green Tagging in Residential Mortgages



Value Drivers for "Green Tagging" of Residential Mortgages

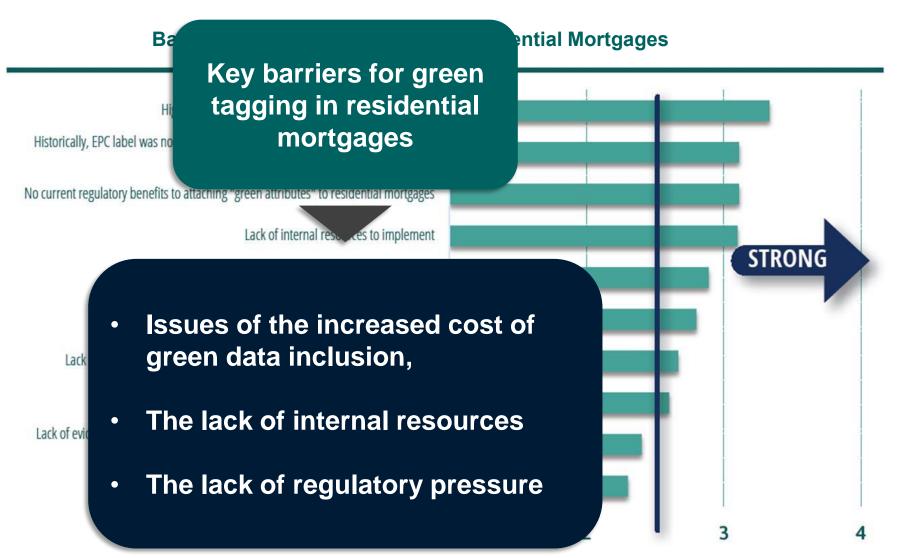
Compared to commercial real estate, the drivers of "green tagging" in residential mortgages relate more to:

- Improved climate disclosure
- Access to the green bond Markets
- Better risk management and regulatory compliance



Green Tagging in Residential Mortgages





Green Tagging in Residential Mortgages



The data required for green tagging of residential mortgages seems to fit well that already available

Mapping of Green Data for Residential Mortgages



Age 1972 to the Report of the Best of the

Green Tagging

■ EPCs

through combining data from EPCs and existing mortgage records.

Existing and Future Progress on Green Tagging



Timings of Green Tagging

How long has your bank been thinking about "Green Tagging" for any kind of real estate?

How many years data can you/ have you run a backwards looking correlation for correlation for property energy efficiency performance vs credit performance?

How long did it/ would it take to integrate "Green Attributes" as extra fields in the bank's mortgage records?

ites" to any kind of

While the average amount of time the surveyed banks have been considering Green Tagging is four years

extra fields in t

Several of these have been attaching green attributes to the properties that back residential or commercial mortgages for the last three years, on average

Existing and Future Progress on Green Tagging

NUI



What can accelerate Green Tagging in Banks

We would be more advanced if we felt that this was higher on our regulator's agenda

We have launched "green product" with improved pricing in order to build our data sets

We would be more advanced if we had more resources/ time to dedicate to this

We have results that we believe can materially impact the risk considerations for "green products"

We have established a "gree tagging" system but need to "give it time" to generate a robust data set

We would like help from this project to run regressions/ identify material patterns from our data

We would be more advanced if we had resolved some IT/ data protection issues

We have some results (pilots, just new loans etc) but we need more time before we can determine "materiality"

We have results which we believe can lead to lower provisioning and capital levels for "green"

We have results that we believe can materially impact the pricing of "green products" (eg. lower mortage rates for green mortgages)

We are able to and have run regressions using "green proxies" to indicate material

"thesis" for green pricing

We are able to and have run regressions using "green proxies" to indicate material "thesis" for green risk reduction

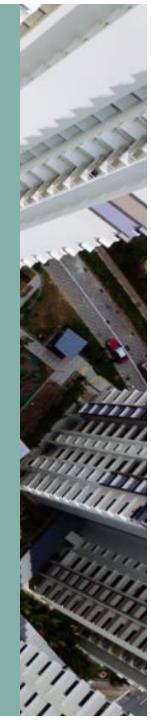
We have results and believe that data supports higher LTV ratios for green properties

To accelerate green tagging, clearly banks look towards their regulator's agenda to detect its priority

Several of the banks have launched green products already to test their theses around the likely performance and to compile relevant data on how these green products compare to their non-labelled equivalents.



Bank Case Studies





Online Tools Simplify Processes and Advance the Energy Efficiency Agenda



Tool Directed at Commercial Clients

- Connects borrowers with technical partners to implement solutions and highlights the multiple government subsidies available.
- ABN AMRO will finance 100% of the investment and has reserved EUR 1 billion for this purpose.

Tool Directed at Homeowners

- Provides customers an overview of the sustainability of their homes and the potential positive impact of 'green' improvements regarding: payback time, comfort and environmental contribution.
- Clients requiring personal advice can be assigned an Energy Passport – a customised digital report detailing how they can make their homes more sustainable.
- ABN AMRO
 own Buildings
- > 50% of the buildings occupied by ABN AMRO have an A energy label. In the case of properties owned by bank, the proportion of is higher at 89%.
- Improving the sustainability of its own properties will give the bank key insight and expertise which will be shared with its partners and clients.

Berlin Hyp Issuer of the First Green Covered Bond



Innovative Approach to Green Finance

Following the success of the issuance, the banks took important steps:

- Its Loan Monitoring System was amended to systemically record sustainability and EE data of the commercial real estate it finances
- A Green Building Commission was installed
- > Bank's unified Green Bond Programme, now allows for the issuance of green bonds in a covered bond and a senior unsecured formats.
- By 2020, 20% of Berlin Hyp's mortgage portfolio ought to consist of loans for energy efficient and sustainable commercial real estate.
 - This goal is supported by a 10 basis points discount for loans for green buildings.

German Regulation Makes Pfandbriefs Attractive to Investors

- 2005's, the German Pfandbrief Act establishes high level requirements pertaining to the protection of investors.
- Act mandates the level of security offered by a Pfandbrief to be equal to government bonds.



Expanding its Work with Green Loans & Green Bonds



Spain's Most Active FI in the Green Bond Market

Having taken part in placing of €8.275 billion in the first 9 months of 2017, the bank has acted an advisor in the following bonds:

- SSE's (€650 million)
- ADIF AV's (€600 million)
- Repsol's (€500 million)
- Community of Madrid's (€700 million) inaugural public bonds.

In 2016 the bank acted as lead manager in the following:

- Acciona Green Bond Private Placement
- Iberdrola 3rd Green Bond
- EDF Green Bond
- Mexico City Airport
- Nacional Financiera
- ICO 2nd Social Bond
- Caja Rural de Navarra Sustainable Covered Bond

BBVA's Responsible Business model

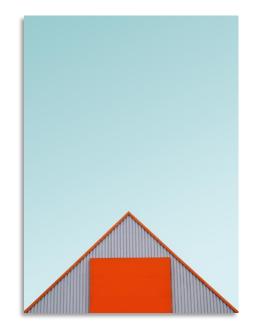
- Prioritizes the creation of solutions to environmental and social challenges
- As a signatory of the Green Bond Principles (GBP), BBVA intends to expand its work with Green Bonds







Powerful App, Providing an Encompassing **Energy and Financial Assessment**



Potential Borrowers Get Detailed Energy Options

Entering data on their buildings (e.g. floor area, age and type) they get:

- 10 feasible energy saving measures on how to lower energy costs and reduce CO2 emissions
- If app's assessment result in annual energy savings of over €15k per building, clients are offered an on-site BREEAM as well as an energy audit at no cost.

App's Results are Impressive

- 1. Used to assess 18k buildings, equivalent to 10 million sgm (65% of ING Real Estate Finance financed portfolio).
- ING seeks to encourage 5,000 Dutch clients to 'green' their portfolio (28k buildings).

Office **Buildings** + **Green Energy** Label Requirements

- > In 2018 ING will only provide finance for Dutch office buildings that meet Green Energy Label requirements.
- Policy is aligned with Dutch regulation mandating buildings housing office space from 2023 onwards to have a minimum of a C energy label to be rentals.



LLOYDS BANK



Commercial Real Estate Green Loan Initiative



£1billion Green Loan Initiative for CRE Lending

Provides incentives for clients through discounted loan margins to:

- 1. Improve the energy Efficiency of their investment portfolios
- 2. Cut carbon emissions

Benchmark Sustainability Performance Tool

Developed with UK's Trucost – enables the bank to:

- 1. Assess the initial eligibility for green loans
- 2. Determine and set appropriate energy/CO2

Assessment Criteria for Lloyds Bank's Green Lending Scorecard

Property's Sustainability Credentials

- Energy Intensity
- Green Certification e.g. BREEAM, LEED
- Exposure to Minimum Energy Efficiency Standards
- Carbon mix of energy supplies

Borrowers' Sustainability Credentials

- Corporate targets
- Sustainability certification programmes
- Sustainable management practices
- Occupier engagement strategies





Intends to Continue Driving the Green Financing Market



SEB's Own Green Bond

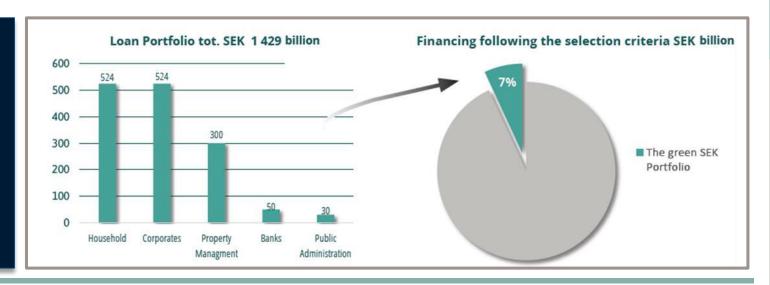
Issued in early 2017 valued at € 500 million. Eligible Assets:

- Loans to finance and/or refinance projects within the EU and the Nordic region targeting
- 2. SSA Green Bonds

Green Virtual Balance Sheet

- 1. **Investors:** separate green financing library offers them a user friendly tool to manage their own green bond portfolios
- 2. **Isuers:** this tool allows them to benchmark themselves





Triodos @ Bank

Sustainable Property and Private Sustainable Mortgages



Triodos Sustainable Real Estate Screen

Combines a series of environmental traits in buildings with issues such as:

- Quality from the perspective of the users
- Experiential value
- Financial returns it produces

Triodos relies on this screen at different stages for two purposes:

- 1. When buying a property, the screen becomes an assessment tool.
- 2. During the management phase, to monitor and enhance the quality of the properties.

Triodos Vastgoedfonds

Europe's first sustainable, listed property fund. 2016 Impact indicators:

- > CO2 emissions of 2,466 tonnes avoided (2015: 2,528 tonnes)
- Total generation capacity solar energy 129 kWp

The average energy use of the buildings in portfolio is 30% lower than the average energy use of office buildings in the Netherlands!

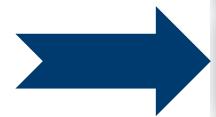




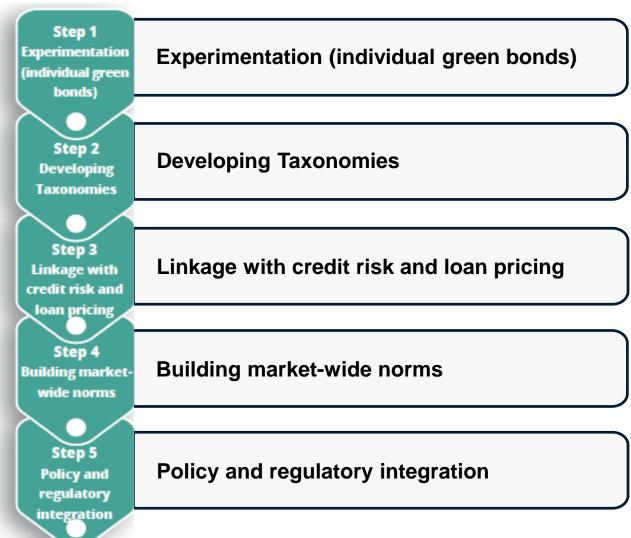
Lessons and Next Steps

Lessons and Next Steps: Practice is Evolving, Not Yet Systematic

 Survey Showed Green Tagging is Evolving Rapidly!



 A life-cycle of this agenda can be outlined in five steps:



Lessons and Next Steps: Lessons from Survey on Current Green Tagging

Progress with green tagging involves:

- Market-wide actions which individual banks cannot accomplish notably in terms of common norms
- Regulatory refinements

1	Commercial ahead of retail
2	Definitions are Critically Important
3	Simplify and Automate
4	Energy efficiency and Climate lead
5	Moving ahead of the Data
6	Regulatory Opportunity
7	EPCs have a central role
8	Internal Priority is Key
9	Leaders are Ready
10	Moving to Performance Analysis

The Future of Green Tagging, Recommendations + Next Steps

 These 5 steps could be made during 2018 and would help to move green tagging from an interesting field of experimentation into a mainstream and trusted tool for expanding EE finance.



Assess the quantitative relationships between building performance and loan performance

2

Build a common EU database of EPCs and other building data

3

Evaluate the links between building performance and regulatory capital



4

Focus on real estate as a pilot for a common classification system

5

Connect green tagging with the new EU securitisation rules









Disclaimer: This presentation is based on a report which has been compiled by Climate Strategy and the UN Environment Inquiry who engaged with an informal working group of 10 leading European banks. The report is a consensus document, meaning that analysis and conclusions are those of the authors based upon a bank consensus and not necessarily subscribed to individually by all of the banks. The work was conducted under the Chatham House Rule, so that the individual survey results were not shared between banks nor are identified here in this report, except by way of case studies which were contributed directly by each bank voluntarily and represent their individual opinion. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the United Nations Environment Programme nor Climate Strategy & Partners concerning the legal status of any country, territory, city or area or of its authorities, or concerning delimitation of its frontiers or boundaries. Moreover, the views expressed do not necessarily represent the decision or the stated policy of the United Nations Environment Programme or Climate Strategy nor does citing of trade names or commercial processes constitute endorsement.

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