

Internet Appendix
for
“Glossy Green” Banks:
The Disconnect Between Environmental Disclosures and Lending Activities

Mariassunta Giannetti, Martina Jasova, Maria Loumioti, and Caterina Mendicino

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A. Additional Appendices

Appendix IA.A. Business description keywords

Panel A. Brown industries keywords

airlines	drilling	mining
airplane	fracking	nitric acid
air transport	fuel	oil
aluminum	gas	paraffin
ammonia	grabbing	petrochemical
asbesto	hydrocarbon	petrol
aviation	hydrochlorin	plastics
cement	iron	polymer
chemical products	kerosene	refine
chemicals	lng	silicium
chlorin	logging	soda ash
coal	lpg	steel
copaper	lubricant	sulfide
diesel	metal fabrication	sulphide
diesel	methanol	sulphuric
drill	mines	

Panel B. Green industries keywords

AIR QUALITY	bioliquid	solar	forest management
air filter(-ration)	biopower	static var	forest land
air quality	bioremediation	superconduct	forest protection
biodiesel	capacitor	thermal	forest regeneration
biolng	charging point	thermodynamic	maritime safety
biolpg	charging station	thermoelectric	natural forest
biomethane	clean energy	thermostat	oil cleanup
carbon dioxide	cogenerate(-ion)	trigenerate(ion)	oil removal
contaminate(-ion)	condensing boiler	ultrasonic humidifier	oil spil
decommision	distributed generate	uranium	organic
degas	electricity storage	voltage regulation	protected area
electric bus	energy audit	CIRCULARITY	rainforest
electric car	energy certified(-cation)	biowaste	reforestation
electric mobility	energy conservation	circular	regenerative farm
electric transport	energy consumption	circularity	seeding
electric vehicle	energy diagnosis	demineral	tropical forest
electromobil	energy efficient(-cy)	desalination	wildlife
emission	energy monitor	drinking water	GENERAL
e-mobil	energy optimum(-ization)	material recovery	climate
fuel consumption	energy recovery	potabilization	drone imaging
fuel inspection	energy saving	rainwater	energy performance
fuel repair	energy storage	recycling	environmental impact
gas capture	energy transition	waste consulting	environment protection

heat pump	energy yield	waste recovery	environmental data
hybrid car	flywheel	waste removal	environmental inspection
hybrid vehicle	fuel cell	waste reuse	environmental management
hybrid vessel	heat recovery	waste solution	environmental monitor
hydrogen	hydraulic	wastewater system	environmental policy
low carbon	hydro	water collection	environmental protection
methane leakage	insulate(-ion)	water consulting	environmental regulation
nitrogen	led	water filter(-ration)	environmental research
nox	lighting control	water purification	environmental risk
rail transport	low power	water quality	environmental safety
railway	marine energy	water remediation	environmental solution
ENERGY	nuclear	water reuse	environmental technology
MANAGEMENT	ocean energy	water safety	green
alternative energy	photovoltaic	water scarcity	natural science
alternative fuel	proofing	water treatment	pollutant
battery(-ies)	renewable	BIODIVERSITY	pollution
bioclimatic	retrofit	ecology	sustainability
bioenergy	sealing	ecosystem	sustainable
biofuel	smart energy	endangered	
biogas			

Appendix IA.B. Examples of Banks' Disclosures on Environmental Issues

In this section, we list some examples from banks' annual filings to illustrate how our dictionary captures disclosures on environmental activities.

ING Group (Annual Report 2020)

ING's power generation portfolio continues to outperform the market and both the International Energy Agency's sustainable development scenario (SDS) and the OECD scenario. In the 12 months measured in the Terra report, **ING reduced its direct exposure to coal-fired power plants by 43 percent (in line with our commitment to reduce it to close to zero by the end of 2025) and increased financing for renewable energy generation by €1.19 billion.** Other sectors face more challenges, such as the residential mortgage sector. There we encounter a shortage of accurate data to measure progress and a general lack of homeowner action. (...) (One of the targets) is our aim **to reduce financing to upstream oil and gas by 19 percent by 2040 from 2019 levels.** We'll align this portfolio both by decreasing exposure and **engaging with clients to help them shift to low-carbon technology.** The measurement is based on three indicators: **emission** intensity, an absolute reduction in financing and a relative transition of the financing mix from high-**carbon** to low-**carbon** and **renewable** energy. This target is also aligned with the SDS scenario, which is not static. If more or quicker action is needed and this scenario is adjusted, our target will adjust accordingly.

Credit Agricole (2020 Annual Report, pg. 61-62)

Propose a range of green offers for the climate transition of Corporate and individual customers

LCL's climate transition offers:

“Sustainable City – **Green** Mobility” consumer loans are designed to finance the purchase of new or used **vehicles** (including pre-financing of the environmentally friendly **car** grant) that produce few or no **polluting emissions**. Loan amounts vary between €3,000 and €75,000, which makes it possible to purchase to a wide range of **vehicles**.

“Impact financing”: for its SME and mid-cap customers, LCL structures and arranges “Impact Financing” (“**Green** Loans” and “Sustainability- Linked Loans”), which are loans or credits whose margin is indexed to ESG performance criteria specific to the company being financed. This offer allows our customers to align their CSR strategy with their financing and, if they achieve their targets, to benefit from a subsidised rate (...) The LCL SmartBusiness programme is designed to support business customers (SMEs, mid-caps, key accounts) with major changes, in particular by promoting the **energy** transition with Greenflex, providing advice on **energy** transition, environmental and societal issues, joining forces with Voltalia through electricity contracts (CPPA), which bring added value to the heart of our customers' business, and with Global **Climate** Initiatives to measure and reduce the environmental footprint. (...)

Farmers also play an essential role in preserving **biodiversity**. Birds and insects in **agricultural** environments, especially pollinators, are key indicators of agro-ecosystem health and are essential for **agricultural** production and food security. As the leading banker to farmers and **foresters**, the Crédit Agricole Group supports farmers in these initiatives and works to preserve and develop **forest** areas in France and abroad, since 80% of the earth's **biodiversity** is found in forests.

Commerzbank (2019)- GRI Report (pg. 53-54):

The integration of non-financial aspects into the Bank's **risk management processes** is hugely important for sustainable finance. These include risks resulting from **climate change**. They form part of the overall risk management and in future will be anchored even more firmly in the risk strategy under "Commerzbank 5.0". Credit risk management already incorporates climate issues in country and sector analyses and in risk assessment. Physical risks include rising sea levels and flooding for the real estate sector, along with crop failures in agriculture or low water levels in rivers, with implications for the transport and chemical industries. Transition risks such as changes in energy policy are also taken into account in the analysis.

Lending decisions for companies and institutional customers are therefore based not only on an individual risk assessment but also – where relevant – on the extent to which they involve climate risks and on the level of resistance to them. If a customer is exposed to a higher probability of physical climate risk, a scenario analysis is carried out and the resilience to climate-related phenomena tested.

In implementing the "Commerzbank 5.0" strategy, we are currently developing a methodology for embedding sustainability considerations in the future management of Commerzbank AG's loan portfolio. **The initial focus is on the CO2 emissions associated with our business activities.** The CO2 intensity of the bank's loan portfolio is to be reduced through individual target values and measures. These include the **promotion of emission-reducing technologies and the active management of financing in CO2-intensive industries.**

By contrast, environmental and social risks arising from our core business are assessed in Commerzbank AG's Reputational Risk Management department. The Bank has adopted a clear position on controversial issues such as weapons, environmentally harmful energy sources and speculative trading in basic foodstuffs. Our process for managing these risks is described in detail in the framework for handling environmental and social risks in the core business, which is published online. The framework also includes all industry-specific requirements, for example relating to mining, energy, oil and gas. Exclusion criteria were defined for particularly critical products, transactions or business relationships. These include projects related to fracking or tar sands, but also the Group-wide decision not to finance new coal (...)

Appendix IA.C. ChatGPT prompt and Examples of Answers

Example 1

Pretend you are an investor. The following text is an excerpt from a bank's annual report: "*Farmers also play an essential role in preserving **biodiversity**. Birds and insects in **agricultural** environments, especially pollinators, are key indicators of agro-ecosystem health and are essential for **agricultural** production and food security. As the leading banker to farmers and **foresters**, the Crédit Agricole Group supports farmers in these initiatives and works to preserve and develop **forest** areas in France and abroad, since 80% of the earth's **biodiversity** is found in forests.*"

Based on this text only, please answer the following question. Are the bank's lending policies environmentally sustainable? There are three choices: "YES", "NO", or "UNKNOWN" if the text contains no relevant information. Then elaborate with a short sentence on the next line.

UNKNOWN

The provided text emphasizes the Crédit Agricole Group's support for farmers and efforts to preserve biodiversity. However, it lacks specific details regarding the bank's lending policies and their overall environmental sustainability.

Example 2

Pretend you are an investor. The following text is an excerpt from a bank's annual report: "*ING's power generation portfolio continues to outperform the market and both the International Energy Agency's sustainable development scenario (SDS) and the OECD scenario. In the 12 months measured in the Terra report, ING reduced its direct exposure to coal-fired power plants by 43 percent (in line with our commitment to reduce it to close to zero by the end of 2025) and increased financing for renewable energy generation by €1.19 billion. Other sectors face more challenges, such as the residential mortgage sector. There we encounter a shortage of accurate data to measure progress and a general lack of homeowner action. (...) (One of the targets) is our aim to reduce financing to upstream oil and gas by 19 percent by 2040 from 2019 levels. We'll align this portfolio both by decreasing exposure and engaging with clients to help them shift to low-carbon technology. The measurement is based on three indicators: emission intensity, an absolute reduction in financing and a relative transition of the financing mix from high-carbon to low-carbon and renewable energy. This target is also aligned with the SDS scenario, which is not static. If more or quicker action is needed and this scenario is adjusted, our target will adjust accordingly.*"

Based on this text only, please answer the following question. Are the bank's lending policies environmentally sustainable? There are three choices: "YES", "NO", or "UNKNOWN" if the text contains no relevant information. Then elaborate with a short sentence on the next line.

YES

The text highlights ING's commitment to reducing exposure to coal-fired power plants, increasing financing for renewable energy, and setting specific targets for reducing financing to upstream oil and gas. These actions align with environmental sustainability goals and suggest a proactive approach towards responsible lending policies.

B. Questionnaire for Textual Classification

INSTRUCTIONS FOR TEXT ANALYSIS		
<p>1. Scope of Analysis:</p> <ul style="list-style-type: none"> When answering the questions, focus exclusively on the <u>sustainability of bank lending policies</u>. <p>2. What to Look For:</p> <ul style="list-style-type: none"> Lending policies directly tied to environmental sustainability, brown/green industries, specific topics (listed below), green loans, ESG-linked financing, or policies to reduce environmental harm through lending practices. <p>3. Feedback and Comments:</p> <ul style="list-style-type: none"> If you encounter ambiguity or require clarification, note your feedback, questions, or concerns in the designated section. These will be addressed during the regular RA meetings. <p>Key Reminders:</p> <ul style="list-style-type: none"> Always refer back to the guidelines to ensure uniformity across all classifications. Use critical thinking to distinguish between relevant and irrelevant ESG contexts. This approach will help maintain precision and clarity in the analysis of bank environmental disclosures. 		
Paragraph identifiers		
ID	Unique paragraph number	These columns identify the paragraphs from the disclosures.
Year	Year of the report	
Paragraph Text	Text of the report	Do not overwrite information in these columns.
Industry information		
Industry name	If the paragraph discusses lending to specific industries, list all mentioned industries.	
Quantitative information		
Commitments	Does the text mention any commitments? (Yes/No)	Examples of commitments: <ul style="list-style-type: none"> Science Based Target Initiative (SBTi) Equator Principles Task Force on Climate-related Financial Disclosures (TCFD) Net Zero Asset Managers Initiative (NZAM) Principles for Responsible Banking (PRB)
Quantitative information	Does the report contain quantitative information that are related to sustainability? (Yes/No)	Focus on numbers, percentages, euro amounts and other quantitative information. Do not include years.

Credit Assessment Criteria		
GHG	Does the paragraph mention greenhouse gas (GHG), emissions or CO2? (Yes/No)	
Energy management	Does the paragraph mention energy management? (Yes/No)	
Ecological impact, biodiversity, deforestation	Does the paragraph mention ecological impact, biodiversity, deforestation or related topics? (Yes/No)	
Air quality, water, toxins substances and waste	Does the paragraph mention topics related to air quality, water, toxins substances and waste? (Yes/No)	
Time horizon		
Past and Present	Does the paragraph refer to past or present initiatives? (Yes/No)	Code as Yes if the paragraph refers to any historical and present / closing year initiatives.
Future	Does the paragraph refer to future initiatives, targets or opportunities? (Yes/No)	Code as Yes if the paragraph refers to any near or distant future initiatives, targets or opportunities.
Years	List all years that the paragraph mentions. If no years are provided leave the cell empty.	
Additional information		
Room for improvement discussions	Does the paragraph mention any weaknesses in the sustainability of its lending policies? (Yes/No)	Code as Yes only if the paragraph talks about weaknesses in sustainability of lending policies. Code as No if general weaknesses of lending policies or general sustainability issues unrelated to lending.
Tone	What is the tone of the paragraph? (Positive/Neutral/Negative)	To determine the tone of the paragraph, consider the following guidelines: Positive Tone: <ul style="list-style-type: none"> The paragraph highlights achievements, progress, or

		<p>improvements in sustainability practices.</p> <ul style="list-style-type: none"> • Language reflects optimism, growth, or success. • Example: “The bank reduced its carbon footprint by 20% and achieved a 100% renewable energy target in its operations.” <p>Neutral Tone:</p> <ul style="list-style-type: none"> • The paragraph provides factual, balanced information without expressing strong positive or negative sentiment. • Describes policies or initiatives without explicit evaluation. • Example: “The bank launched a new policy to assess the environmental impact of its lending practices.” <p>Negative Tone:</p> <ul style="list-style-type: none"> • The paragraph discusses failures, weaknesses, or areas needing significant improvement in sustainability. • Language reflects concern, criticism, or setbacks.
Notes	Feel free to add any other notes, if needed	List your questions, and comments. We will address them during our regular RA meetings.

C. Supplementary Figures and Tables

Figure IA.1. Banks' Emphasis on the Sustainability of Lending Policies and New Loans to Brown Industries

The figure presents the coefficients of time-varying estimates of the association between banks' credit-related environmental disclosures and the volume of new loans to borrowers in brown industries for each year, as described by Model 1. The dependent variable is the natural logarithm of the amount of new loans extended by a bank to a given borrower during a year (*Loan amount*). *Brown* is an indicator variable of whether a firm belongs to a NACE-2 industry for which the ratio of GHG emissions to gross value added ranks in the top quintile of the ratio's distribution across all industries in the firm's country during a year. *High environmental reporter* is an indicator variable of whether a bank's environmental disclosures rank in the top quintile of the variable's distribution during a year. We plot the coefficient on the interaction term between these two variables estimated year by year. Vertical lines denote a 95% confidence interval. Standard errors are corrected for heteroskedasticity and clustered at the bank level.

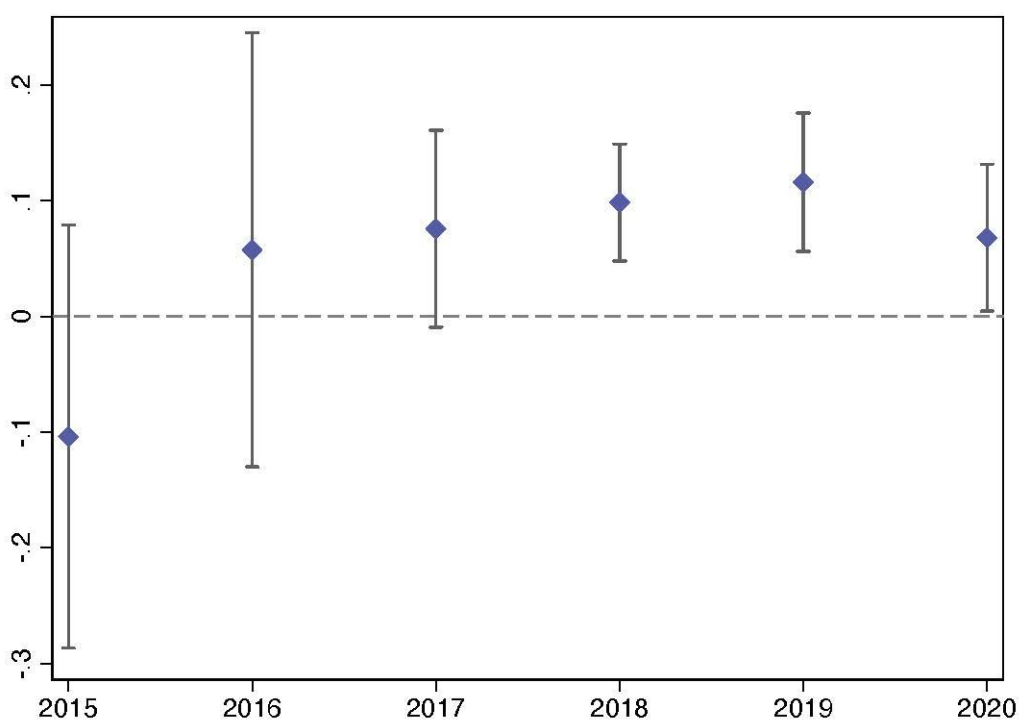


Table IA.1. Banks' Reports by Year

The table reports the number of documents used to construct banks' *Environmental Disclosures*.

Report type	Number of reports	Mean total wordcount	Mean environmental wordcount
Annual report	623	81,584	700
Integrated report	57	28,257	414
Nonfinancial report	61	17,411	466
Other	383	3,895	199
Sustainability report	273	17,199	509
Total	1,397	42,760	503

Table IA.2. Benefits of Banks' Emphasis on the Sustainability of Lending Policies

The table examines the relation between banks' *Environmental Disclosures* and subsequent changes in MSCI environmental risk score. The dependent variable, $\Delta(\text{MSCI Env Score})$, is annual change in MSCI environmental risk score from year t-1 to t. *Environmental disclosures* is the ratio of words in paragraphs emphasizing a bank's sustainable lending policies to the total words. *High Brown Exposure* is an indicator variable of bank credit exposure to brown industries ranks in the top quintile of the distribution across all bank during a year. Fixed effects are included as indicated but not tabulated. Bank controls include *Total assets*, *Leverage*, *ROA*, and *Tier 1 Capital*. Standard errors are corrected for heteroskedasticity and clustered at the bank level. ***, ** and * denote significance at the 1%, 5% and 10% (two-sided) levels, respectively.

	$\Delta(\text{MSCI Env score})_{t-1, t}$		
	(1)	(2)	(3)
Environmental disclosures _{t-1}	1.122* (0.661)	0.782 (0.727)	2.759* (1.600)
High Brown Exposure _{t-1}	-0.147* (0.0850)	-0.142 (0.0888)	-0.187 (0.127)
Environmental disclosures _{t-1} x High Brown Exposure _{t-1}	5.638** (2.310)	5.897** (2.420)	6.336* (3.473)
Bank Controls	No	Yes	Yes
Time FE	Yes	Yes	Yes
Bank FE	No	No	Yes
N	353	353	351
R ²	0.0348	0.0412	0.152

Table IA.3. Characteristics of Brown Borrowers of Sustainability-Focused Banks

The table examines the characteristics of brown borrowers compared to the other borrowers of high-environmental reporters (Panel A) and whether the features of brown borrowers differ for those granted a loan by bank that emphasize the sustainability of their lending policy in comparison to those that are clients of other banks (Panel B). Borrower characteristics include *Total Assets*, *Leverage*, *R&D*, *Investment*, *Age* (the natural logarithm of a borrower's years since incorporation), *ROA* (operating income to total assets), *SBTi* (an indicator variable of whether a borrower has adopted the SBTi). *Brown* is an indicator variable of whether a firm belongs to a NACE-2 industry for which the ratio of GHG emissions to gross value added ranks in the top quintile of the ratio's distribution across all industries in the firm's country during a year. The analysis is at the borrower-time level. In Panel B, *High environmental reporter* is an indicator variable of whether a bank's *Environmental Disclosures* rank in the top quintile of the variable's distribution during a year. We further control for *Existing relationship*, defined as an indicator variable for whether the lender has previously extended credit to the borrower. The analysis is at the bank-firm-time level. Fixed effects are included as indicated but not tabulated. Standard errors are reported in parentheses, corrected for heteroskedasticity and clustered at the bank level. ***, ** and * denote significance at the 1%, 5% and 10% (two-sided) levels, respectively.

<i>Panel A: Brown borrower characteristics</i>		
	Brown	
	(1)	(2)
Total Assets	0.0141*** (0.000494)	0.0141*** (0.000495)
Leverage	0.0510*** (0.00326)	0.0510*** (0.00326)
R&D	-0.0156 (0.0192)	-0.0144 (0.0192)
Investment	-0.000115 (0.00172)	-0.000113 (0.00172)
Age	0.00975*** (0.000918)	0.00974*** (0.000918)
ROA	0.00582 (0.00632)	0.00579 (0.00632)
SBTi		-0.0820 (0.0515)
Time FE	Yes	Yes
Country FE	Yes	Yes
N	320,807	320,807
R ²	0.0760	0.0760

Panel B: Brown borrower characteristics and sustainability-focused banks

	Brown	
	(1)	(2)
High env. reporter	0.00730 (0.0593)	0.0228 (0.0612)
Total Assets	0.0174*** (0.00112)	0.0180*** (0.00111)
High env. reporter x Total Assets	-0.00302 (0.00409)	-0.00405 (0.00370)
Leverage	0.0403***	0.0381***

	(0.00518)	(0.00441)
High env. reporter x Leverage	0.00225 (0.0133)	0.00663 (0.0102)
R&D	-0.0245*** (0.00816)	-0.0197** (0.00795)
High env. reporter x R&D	0.00202 (0.00708)	0.00220 (0.00769)
Investment	0.0139*** (0.00249)	0.0134*** (0.00245)
High env. reporter x Investment	-0.0134** (0.00593)	-0.0125** (0.00518)
Age	0.00279** (0.00110)	0.00281*** (0.00104)
High env. reporter x Age	0.00668* (0.00398)	0.00676* (0.00377)
ROA	0.0277*** (0.0103)	0.0211** (0.0105)
High env. reporter x ROA	-0.0442 (0.0305)	-0.0369 (0.0300)
SBTi	-0.0731 (0.0521)	-0.0680 (0.0517)
High env. reporter x SBTi	-0.0236 (0.0655)	-0.0289 (0.0648)
Existing relationship	0.0122*** (0.00217)	0.0108*** (0.00198)
High env. reporter x Existing relationship	0.0179 (0.0117)	0.0172 (0.0115)
Time FE	Yes	Yes
Country FE	Yes	Yes
Bank FE	No	Yes
N	1,732,815	1,732,796
R ²	0.0610	0.0670

Table IA.4. Banks' Emphasis on the Sustainability of Lending Policies and New Loans to Green and Brown Industries, using loans issued post-2018

The table examines the robustness of the baseline analyses in Table 3 considering only loans originated post 2018. All other specifications are the same to those in Table 3. Standard errors are reported in parentheses, corrected for heteroskedasticity and clustered at the bank level. ***, ** and * denote significance at the 1%, 5% and 10% (two-sided) levels, respectively.

	Loan Amount					
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A. Brown industries</i>						
High env. reporter	-0.0304 (0.134)	-0.0867 (0.0786)		-0.0448 (0.0471)		
Brown	-0.0497*** (0.0182)					
High env. reporter x Brown	0.00809 (0.0234)	0.101*** (0.0213)	0.0847*** (0.0243)	0.0275 (0.0197)	0.0311 (0.0217)	0.0177 (0.0253)
N	1,614,428	2,483,590	2,483,549	669,713	669,496	329,547
R ²	0.761	0.183	0.187	0.781	0.785	0.922
<i>Panel B. Green industries</i>						
High env. reporter	-0.0268 (0.140)	-0.0649 (0.0816)		-0.0380 (0.0485)		
Green	-0.0181 (0.0474)					
High env. reporter x Green	-0.00402 (0.0317)	-0.0205 (0.0241)	0.00239 (0.0171)	-0.00774 (0.0321)	0.00491 (0.0279)	-0.0240 (0.0260)
N	1,614,428	2,483,590	2,483,549	669,713	669,496	329,547
R ²	0.761	0.183	0.187	0.781	0.785	0.922
Bank controls	Yes	Yes	-	Yes	-	-
Bank FE	Yes	Yes	-	Yes	-	-
Firm FE	Yes	No	No	-	-	-
Time FE	Yes	-	-	-	-	-
Industry-Country-Time FE	No	Yes	Yes	-	-	-
Firm-Time FE	No	No	No	Yes	Yes	Yes
Bank-Time FE	No	No	Yes	No	Yes	Yes
Bank-Firm FE	No	No	No	No	No	Yes

Table IA.5. Banks' Emphasis on the Sustainability of Lending Policies and New Loans to Green and Brown Industries, using the continuous variable *Environmental disclosures*

The table examines the robustness of the baseline analyses in Table 3 using the continuous variable *Environmental disclosures*. All other specifications are the same to those in Table 3. Standard errors are reported in parentheses, corrected for heteroskedasticity and clustered at the bank level. ***, ** and * denote significance at the 1%, 5% and 10% (two-sided) levels, respectively.

	Loan Amount					
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Brown industries</i>						
Environmental disclosures	1.215 (0.813)	0.286 (0.551)		0.179 (0.834)		
Brown	-0.162*** (0.0373)					
Environmental disclosures x Brown	-0.941 (0.793)	0.948*** (0.309)	0.687** (0.318)	0.185 (0.276)	0.0698 (0.228)	0.00373 (0.252)
N	2,822,338	3,740,323	3,740,250	828,689	828,074	432,886
R ²	0.705	0.200	0.207	0.792	0.797	0.917
<i>Panel B: Green industries</i>						
Environmental disclosures	1.173 (0.809)	0.476 (0.516)		0.349 (0.789)		
Green	-0.0835* (0.0481)					
Environmental disclosures x Green	0.498 (0.362)	-0.369 (0.278)	-0.187 (0.242)	-0.546 (0.344)	-0.308 (0.374)	-0.544 (0.376)
N	2,822,338	3,740,323	3,740,250	828,689	828,074	432,886
R ²	0.705	0.200	0.207	0.792	0.797	0.917
Bank controls	Yes	Yes	-	Yes	-	
Bank FE	Yes	Yes	-	Yes	-	
Firm FE	Yes	No	No	-	-	
Time FE	Yes	-	-	-	-	
Industry-Country-Time FE	No	Yes	Yes	-	-	
Firm-Time FE	No	No	No	Yes	Yes	Yes
Bank-Time FE	No	No	Yes	No	Yes	Yes
Bank-Firm FE	No	No	No	No	No	Yes

Table IA.6. Banks' Emphasis on the Sustainability of Lending Policies and New Loans to Green and Brown Industries, using Lagged and Future Disclosures

The table examines the robustness of the baseline analyses in Panel A of Table 3 using alternative proxies for high environmental reporters. In Panel A, we define the *High environmental reporter* dummy using the three-year lag of the environmental disclosures. In Panel B, we report the estimates using one year lead and lag of the environmental disclosures. All other specifications are similar to those in Table 3. Standard errors are reported in parentheses, corrected for heteroskedasticity and clustered at the bank level. ***, ** and * denote significance at the 1%, 5% and 10% (two-sided) levels, respectively.

Panel A: Lag of Environmental Disclosures

	Loan Amount					
	(1)	(2)	(3)	(4)	(5)	(6)
High env. reporter (t-3)	-0.163 (0.148)	-0.150*** (0.0329)		-0.201*** (0.0394)		
Brown		-0.0534*** (0.0197)				
High env. reporter (t-3) x Brown	0.0360 (0.0227)	0.0905*** (0.0231)	0.0691*** (0.0221)	0.0250 (0.0214)	0.0250 (0.0230)	-0.0234 (0.0297)
Bank controls	Yes	Yes	-	Yes	-	
Bank FE	Yes	Yes	-	Yes	-	
Firm FE	Yes	No	No	-	-	
Time FE	Yes	-	-	-	-	
Industry-Country-Time FE	No	Yes	Yes	-	-	
Firm-Time FE	No	No	No	Yes	Yes	Yes
Bank-Time FE	No	No	Yes	No	Yes	Yes
Bank-Firm FE	No	No	No	No	No	Yes
N	1,552,512	2,386,642	2,386,627	636,756	636,539	311,841
R ²	0.761	0.179	0.183	0.780	0.783	0.922

Panel B: Leads and Lags of Environmental Disclosures

	Loan Amount					
	(1)	(2)	(3)	(4)	(5)	(6)
High env. reporter (t-1) x Brown	0.0796*** (0.0212)	0.0309* (0.0186)				
High env. reporter (t) x Brown			0.0783*** (0.0209)	0.0331* (0.0196)		
High env. reporter (t+1) x Brown					0.0790*** (0.0196)	0.0342 (0.0278)
Industry-Country-Time FE	Yes	-	Yes	-	Yes	-
Firm-Time FE	No	Yes	No	Yes	No	Yes
Bank-Time FE	Yes	Yes	Yes	Yes	Yes	Yes
N	3,390,994	786,615	3,740,250	828,074	2,623,380	534,600
R ²	0.196	0.794	0.207	0.797	0.211	0.802

Table IA.7. Banks' Emphasis on the Sustainability of Lending Policies and Firms with Green Business Descriptions

The table examines the robustness of the baseline analyses in Panel B of Table 4 focusing on the greenness of borrowers' business activities, defined as an indicator variable constructed by performing textual analysis of business descriptions of public and private companies from S&P Capital IQ (*Green business*). All other specifications are the same to those in Panel B of Table 4. Standard errors are reported in parentheses, corrected for heteroskedasticity and clustered at the bank level. ***, ** and * denote significance at the 1%, 5% and 10% (two-sided) levels, respectively.

	Loan Amount					
	(1)	(2)	(3)	(4)	(5)	(6)
High env. reporter	-0.0216 (0.0308)	-0.0386 (0.0639)		-0.0297 (0.0447)		
Green business		0.816*** (0.0444)	0.810*** (0.0447)			
High env. reporter x Green business	0.0648 (0.0338)	0.158 (0.148)	0.168 (0.147)	0.0618 (0.0471)	0.0715 (0.0478)	0.0063 (0.0597)
N	926,883	1,180,106	1,179,910	311,548	310,951	82,644
R ²	0.729	0.257	0.266	0.806	0.811	0.922
Bank controls	Yes	Yes	-	Yes	-	-
Bank FE	Yes	Yes	-	Yes	-	-
Firm FE	Yes	No	No	-	-	-
Time FE	Yes	-	-	-	-	-
Industry-Country-Time FE	No	Yes	Yes	-	-	-
Firm-Time FE	No	No	No	Yes	Yes	Yes
Bank-Time FE	No	No	Yes	No	Yes	Yes
Bank-Firm FE	No	No	No	No	Yes	Yes

Table IA.8. The Extensive Margin of Bank Lending and Emphasis on the Sustainability of Lending Policies: Green Industries

The table examines the robustness of the extensive margin of banks' credit decisions considering green industries. All other specifications are the same to those in Table 6. Standard errors are reported in parentheses, corrected for heteroskedasticity and clustered at the bank level. ***, ** and * denote significance at the 1%, 5% and 10% (two-sided) levels, respectively.

<i>Panel A. New relationships</i>						
	Entry					
	(1)	(2)	(3)	(4)	(5)	(6)
High env. reporter	0.0348 (0.0212)	0.0328 (0.0231)		0.0338** (0.0159)		
Green	0.0166 (0.0207)					
High env. reporter x Green	0.0199* (0.0101)	0.0125 (0.00865)	0.00895* (0.00497)	0.0159 (0.00975)	0.0119** (0.00461)	0.0218*** (0.0059)
N	2,080,303	2,804,073	2,804,052	1,408,479	1,408,397	996,592
R ²	0.391	0.0921	0.103	0.425	0.434	0.742
<i>Panel B. Relationship termination</i>						
	Exit					
High env. reporter	-0.0121 (0.0295)	0.0103 (0.0219)		-0.00582 (0.0118)		
Green	-0.0310** (0.0136)					
High env. reporter x Green	-0.00886 (0.00618)	-0.00624 (0.00392)	-0.00305 (0.00305)	-0.00628* (0.00370)	-0.00459 (0.00318)	-0.0018 (0.0095)
N	1,191,339	1,719,707	1,719,695	919,101	919,040	552,656
R ²	0.363	0.0453	0.0535	0.451	0.456	0.690
Bank controls	Yes	Yes	-	Yes	-	-
Bank FE	Yes	Yes	-	Yes	-	-
Firm FE	Yes	No	No	-	-	-
Time FE	Yes	-	-	-	-	-
Industry-Country-Time FE	No	Yes	Yes	-	-	-
Firm-Time FE	No	No	No	Yes	Yes	Yes
Bank-Time FE	No	No	Yes	No	Yes	Yes
Bank-Firm FE	No	No	No	No	No	Yes

Table IA.9. Banks' Emphasis on the Sustainability of Lending Policies, New Loans to Green and Brown Industries, and Subsequent Borrower Default

The table examines loan default status over the three-year horizon post issuance (*Default*) for borrowers in brown and green industries and by banks that emphasize the sustainability of their lending policies. The dependent variable is an indicator of whether the newly issued loan is in default in years t+1, t+2 and t+3 after the issuance. In Panel A (B), *Brown (Green)* is an indicator variable of whether a firm belongs to a NACE-2 industry for which the ratio of GHG emissions to gross value added ranks in the top (bottom) quintile of the ratio's distribution across all industries in the firm's country during a year. *High environmental reporter* is an indicator variable of whether a bank's *Environmental Disclosures* rank in the top quintile of the variable's distribution during a year. Fixed effects and bank controls are included as indicated but not tabulated. Standard errors are reported in parentheses, corrected for heteroskedasticity and clustered at the bank level. ***, ** and * denote significance at the 1%, 5% and 10% (two-sided) levels, respectively.

	Default (t+1)		Default (t+2)		Default (t+3)	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A: Brown borrowers</i>						
High env. reporter x Brown	-0.00331 (0.00622)	-0.00187 (0.00368)	0.00103 (0.00754)	-0.00185 (0.00638)	0.00459** (0.00205)	0.00721** (0.00339)
N	1,061,659	186,674	970,831	139,678	920,293	97,108
R ²	0.135	0.760	0.117	0.820	0.109	0.852
<i>Panel B: Green borrowers</i>						
High env. reporter x Green	0.00223 (0.00402)	0.00492** (0.00190)	-0.0066** (0.00274)	0.00108 (0.00389)	-0.0071** (0.00285)	-0.000824 (0.00316)
N	1,061,659	186,674	970,831	139,678	920,293	97,108
R ²	0.135	0.760	0.117	0.820	0.109	0.852
Industry-Country-Time FE	Yes	-	Yes	-	Yes	-
Firm-Time FE	No	Yes	No	Yes	No	Yes
Bank-Time FE	Yes	Yes	Yes	Yes	Yes	Yes

Table IA.10. Firm's Exposure to Banks that Emphasize the Sustainability of their Lending Policies and Subsequent GHG Climate Efforts

The table examines whether borrowers that receive loans from high environmental reporters subsequently reduce their GHG emissions obtained from Urgentem data (Panel A), adopt SBTi (Panel B), increase their investments in fixed assets (Panel C) and in R&D (Panel D). Columns (1) and (2) estimate the effect on the outcome variables in year $t+1$. The following columns report the effects for subsequent years from $t+2$ until $t+3$. *High env. reporter exposure* denotes the share of credit a firm receives from high-environmental-disclosure banks as a share to total bank credit in year t . Fixed effects are included as indicated but not tabulated. Standard errors are reported in parentheses, corrected for heteroskedasticity and clustered at the firm level. ***, ** and * denote significance at the 1%, 5% and 10% (two-sided) levels, respectively.

<i>Panel A. GHG emissions</i>						
	GHG emissions (t+1)		GHG emissions (t+2)		GHG emissions (t+3)	
	(1)	(2)	(3)	(4)	(5)	(6)
High env. reporter exposure	9.501 (19.29)	0.261 (9.412)	7.964 (18.28)	11.09 (12.13)	11.39 (19.55)	-5.842 (13.73)
N	1,428	1,134	1,412	1,121	1067	816
R ²	0.382	0.938	0.387	0.926	0.378	0.922
<i>Panel B. SBTi</i>						
	SBTi (t+1)		SBTi (t+2)		SBTi (t+3)	
	(1)	(2)	(3)	(4)	(5)	(6)
High env. reporter exposure	-0.0000087 (0.0000461)	0.0000153 (0.0000484)	-0.0000091 (0.0000579)	0.0000261 (0.0000704)	0.0000676 (0.0000630)	-0.0000810 (0.0000795)
N	362,483	291,348	368,023	295,600	293,337	218,994
R ²	0.0191	0.505	0.0607	0.530	0.0558	0.484
<i>Panel C. Fixed asset investments</i>						
	Investment (t+1)		Investment (t+2)		Investment (t+3)	
	(1)	(2)	(3)	(1)	(2)	(3)
High env. reporter exposure	-0.00106** (0.000443)	-0.00180** (0.000804)	-0.000680* (0.000402)	-0.000410 (0.000728)	-0.000222 (0.000447)	0.000374 (0.000831)
N	1,230,672	786,013	1,297,797	850,776	958,426	580,028
R ²	0.0318	0.463	0.0258	0.448	0.0232	0.467
<i>Panel D. R&D investments</i>						
	R&D (t+1)		R&D (t+2)		R&D (t+3)	
	(1)	(2)	(3)	(4)	(5)	(6)
High env. reporter exposure	-0.00025** (0.000113)	0.0000404 (0.0000523)	-0.000130* (0.0000682)	-0.0000523 (0.0000498)	0.000130 (0.000103)	-0.0000118 (0.0000183)
N	1,323,310	881,299	1,303,345	881,039	935,835	577,227
R ²	0.150	0.931	0.145	0.890	0.176	0.994
Industry-Country-Time FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	No	Yes	No	Yes	No	Yes

D. Supplementary Analysis Using Dictionary-Based Text Analysis

In this section, we present results using an alternative textual analysis methodology that relies on the dictionary approach. Following Li (2010), we develop a dictionary tailored to capture environmental reporting choices within the banking context. We therefore read 50 documents to determine repeating patterns in the words and phrases that banks commonly use to communicate their environmental activities. We further rely on the definitions of relevant sustainability topics included in RepRisk—a database containing media coverage of firms’ sustainability risks— and in the Materiality Map developed by SASB.¹

Our dictionary of environmental-information-related keywords includes non-directional words and phrases related to energy use and waste management (e.g., “oil”, “renewables”, “natural gas”, “coal”, “nuclear”, “paper”), emissions (e.g., “CO2”, “carbon”, “emission”, “laughing gas”), biodiversity (e.g., “biodiversity”, “forest”, “coral”), activities commonly consider to affect pollution (e.g., “car”, “building certificate”, “pollute”, “waste”, “fracking”, “grabbing”), or that may have negative ecological consequences (“gmo”).² We reduce all keywords to their stems before performing the textual analysis of banks’ documents. The full list of environmental keywords is reported in Table IA.VII.

Similarly to the baseline analysis using ChatGTP, we define *Environmental disclosures* as the ratio of environmental-information-related keywords in a bank’s documents reported over a year to the total number of words in these documents (excluding stop-words, such as “and,” “a,” and “by”).

Table IA.11 summarized the results findings using the alternative dictionary-based text analysis. The reported findings are consistent with the baseline results reported in Table 3. Specifically, in Panel A, across all specifications, we show that banks classified as high environmental reporters grant more credit to borrowers in brown industries. In Panel B, we consider loans to borrowers in green industries. We find no evidence that emphasizing the environment in public reporting is associated with greener lending practices.

¹ SASB offers detailed guidelines on important sustainability topics that firms across different sectors are expected to disclose in their investor reports: <https://www.sasb.org/standards/materiality-map/>.

² We exclude the keyword “environmental” as vaguely describing underlying indicators of banks’ specific environmental activities, and thus, potentially biasing our analysis in favor of finding evidence consistent with banks’ unsubstantiated claims. Our dictionary is similar to the ones employed in prior studies that examine attributes of firms’ environmental disclosures (e.g., Chou and Kimbrough, 2020; Baz et al., 2021).

Appendix IA.D. Environmental-related keywords

(1)	agriculture	(31)	energy	(61)	paper
(2)	air quality	(32)	energy star	(62)	petrol
(3)	air travel	(33)	equator	(63)	pfc
(4)	animal	(34)	farmer	(64)	photovoltaic
(5)	asbestos	(35)	fish	(65)	plastic
(6)	automobile	(36)	forest	(66)	pollute
(7)	automotive	(37)	fracking	(67)	recycle
(8)	biodiversity	(38)	fuel	(68)	renewables
(9)	building	(39)	glass	(69)	sea
(10)	building certificate	(40)	gmo	(70)	sf6
(11)	business travel	(41)	grabbing	(71)	silicium
(12)	car	(42)	green	(72)	solar
(13)	carbon	(43)	habitat	(73)	sox
(14)	Manufacture of other non-metallic products	(44)	heat	(74)	soy
(15)	certified building	(45)	hfc	(75)	sugar
(16)	ch4	(46)	hydro	(76)	sulphuric
(17)	chemicals	(47)	land	(77)	temperature
(18)	circular	(48)	laughing gas	(78)	transport
(19)	climate	(49)	leed	(79)	tree
(20)	co2	(50)	metal	(80)	uranium
(21)	coal	(51)	methane	(81)	vehicle
(22)	commute	(52)	mines	(82)	waste
(23)	coral	(53)	mining	(83)	water
(24)	corporate travel	(54)	mountain	(84)	weather
(25)	diesel	(55)	n2o	(85)	wind
(26)	drill	(56)	natural gas	(86)	wood
(27)	ecosystem	(57)	natural resource		
(28)	electric	(58)	nuclear		
(29)	emission	(59)	ocean		
(30)	endangered	(60)	oil		

Table IA.11. Banks' Emphasis on Sustainability and New Loans to Green and Brown Industries, using Dictionary-Based Text Analysis

The table examines the association between banks' environmental disclosures and the volume of new loans extended to individual borrowers (*Loan amount*). *High environmental reporter* is an indicator variable of whether a bank's *Environmental Disclosures* rank in the top quintile of the variable's distribution during a year. The variable is constructed as the ratio of environmental-information-related keywords in a bank's reports over a year to the total number of words in these reports using the dictionary-based approach described above. All other specifications are the same to those in Table 3. Standard errors are reported in parentheses, corrected for heteroskedasticity and clustered at the bank level. ***, ** and * denote significance at the 1%, 5% and 10% (two-sided) levels, respectively.

	Loan Amount					
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Panel A. Brown industries</i>						
High env. reporter	-0.0740 (0.0582)	-0.0968*** (0.0300)		-0.0177 (0.0173)		
Brown	-0.186*** (0.0323)					
High env. reporter x Brown	0.129** (0.0510)	0.0878** (0.0372)	0.0978*** (0.0282)	0.0715** (0.0321)	0.0538* (0.0284)	0.00374 (0.0194)
N	2,231,059	3,058,259	3,058,180	636,717	636,085	432,886
R ²	0.712	0.206	0.213	0.799	0.803	0.917
<i>Panel B. Green industries</i>						
High env. reporter	-0.0409 (0.0609)	-0.0855** (0.0356)		-0.00326 (0.0245)		
Green	-0.0282 (0.0285)					
High env. reporter x Green	-0.0674 (0.0512)	-0.00839 (0.0445)	-0.00487 (0.0341)	-0.0239 (0.0701)	-0.0121 (0.0601)	0.00051 (0.0286)
N	2,231,059	3,058,259	3,058,180	636,717	636,085	432,886
R ²	0.712	0.206	0.213	0.799	0.803	0.917
Bank controls	Yes	Yes	-	Yes	-	-
Bank FE	Yes	Yes	-	Yes	-	-
Firm FE	Yes	No	No	-	-	-
Time FE	Yes	-	-	-	-	-
Industry-Country-Time FE	No	Yes	Yes	-	-	-
Firm-Time FE	No	No	No	Yes	Yes	Yes
Bank-Time FE	No	No	Yes	No	Yes	Yes
Bank-Firm FE	No	No	No	No	No	Yes